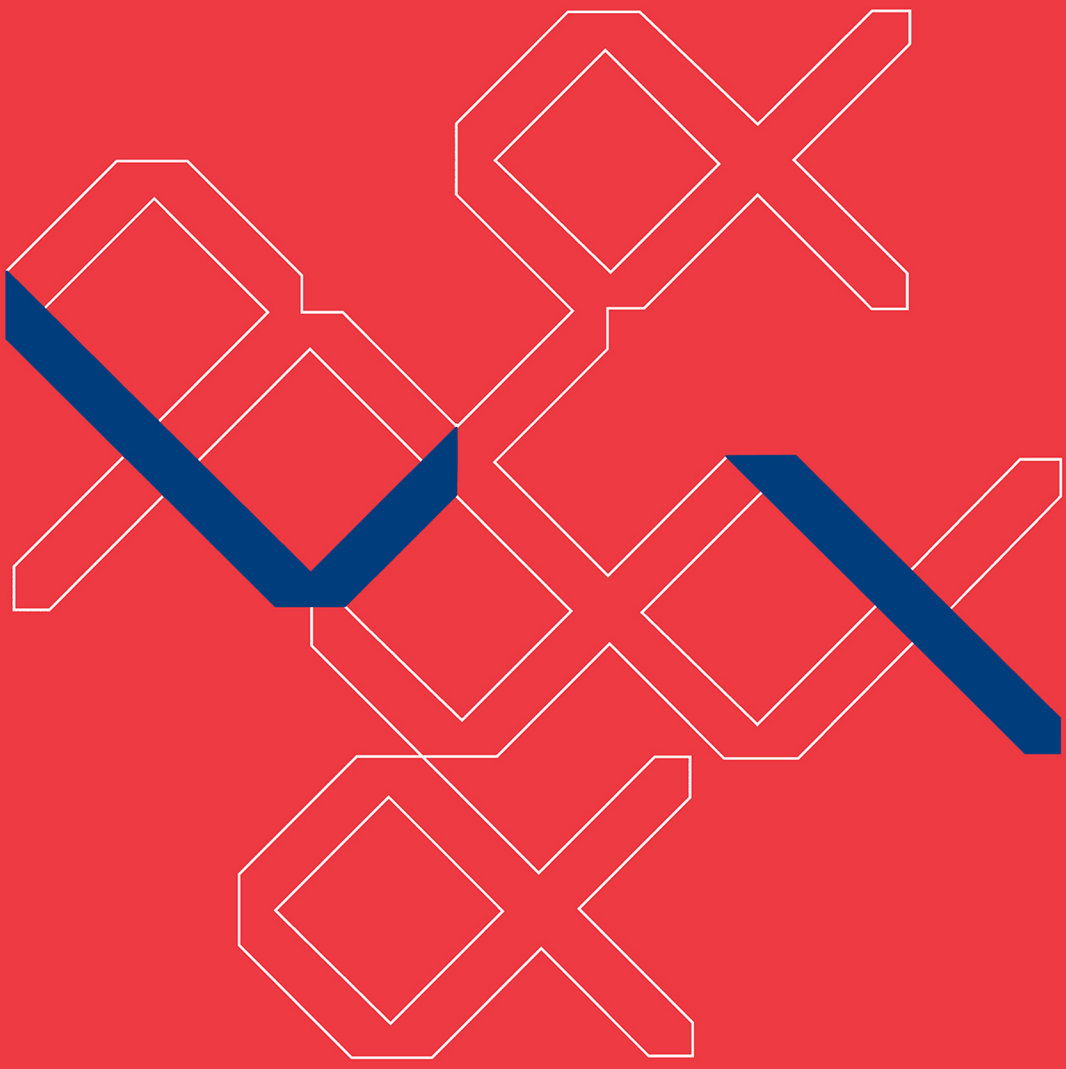
Linguistic Inquiry
Monograph Seventy-Five

Agreement Beyond Phi

Shigeru Miyagawa



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Agreement Beyond Phi

Shigeru Miyagawa

The MIT Press
Cambridge, Massachusetts
London, England

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This book was set in Times LT Std by Toppan Best-set Premedia Limited. Printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

Names: Miyagawa, Shigeru, author.
Title: Agreement beyond Phi / Shigeru Miyagawa.
Description: Cambridge, MA : The MIT Press, [2017] | Series: Linguistic inquiry monographs ; 75th | Includes bibliographical references and index.
Identifiers: LCCN 2016030743| ISBN 9780262035880 (hardcover : alk. paper) | ISBN 9780262533324 (pbk. : alk. paper)
Subjects: LCSH: Grammar, Comparative and general--Agreement. | Japanese language--Agreement. | Japanese language--Syntax. | Grammar, Comparative and general--Agreement. | Discourse markers. | Government-binding theory (Linguistics) | Minimalist theory (Linguistics)
Classification: LCC PL597.A35 M48 2016 | DDC 495.6/5--dc23 LC record available at https://lccn.loc.gov/2016030743

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Series Foreword

We are pleased to present the seventy-fifth volume in the series *Linguistic Inquiry Monographs.* These monographs present new and original research beyond the scope of the article. We hope they will benefit our field by bringing to it perspectives that will stimulate further research and insight.

Originally published in limited edition, the *Linguistic Inquiry Monographs* are now more widely available. This change is due to the great interest engendered by the series and by the needs of a growing readership. The editors thank the readers for their support and welcome suggestions about future directions for the series.

Samuel Jay Keyser
for the Editorial Board

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Preface

A challenge of doing linguistic theory is that—despite the collective wisdom of the generative linguists that human language emerges from a universal system—the sheer number of Western linguists working in the field, and the predominance of linguistic data from languages spoken by those linguists, can distort our conception of what the universal system looks like. A good example of this is the start of the Minimalist Program (MP). Having abandoned the universal principles of the Government and Binding (GB) era as a mere rewording of the problems they were supposed to solve (Chomsky 1995), the MP makes an effort to incorporate only elements that have independent and intuitive motivation. This does not mean that the MP drastically changed the direction of the theory. Much of the history of generative grammar from its inception in the 1950s has been concerned with issues directly or indirectly related to movement, so the earliest researchers working in the MP framework naturally directed their attention to linguistic elements that could be the driving force for movement. What could these driving forces be? Around that time, in the late 1980s, an important innovation had been introduced into linguistic theory that separated MP from GB. This was the so-called predicate-internal subject hypothesis, which postulated that the external argument originates in the verbal projection instead of being merged directly into Spec,TP (e.g., Kuroda 1988, Sportiche 1988). The question naturally arose as to what triggers the movement of the external argument from its original position to Spec, TP, and it became an early focus of intense research. This is when the EPP, introduced earlier with little fanfare (Chomsky 1981), came to play a central role. An observation about the EPP is that it appears to coincide with morphological agreement. As a result, grammatical agreement came to play a central role as the driver of narrow-syntax operations including movement (e.g., Chomsky 1993, 1995), and understandably, agreement-driven operations came to dominate a great deal of the discussion in linguistic theory.

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For those of us who have worked for much of our career on languages that don't have grammatical agreement, the question naturally arose: what can we do to contribute to this new and exciting development in linguistic theory? One important research direction that emerged was to take agreementless languages at face value: they have no agreement, so no movement is forced (e.g., Kuroda 1988). However, I took a different tack. My intuition was that movement has a function—ideally the same function—across all languages. If, in agreement languages, it is morphological agreement that is triggering operations such as movement, there ought to be something computationally equivalent in the agreementless languages that triggers movement. If we could identify it, it would allow us to treat the agreement and agreementless languages as parts of a unified whole. In *Why Agree? Why Move?* (Miyagawa 2010), I proposed a theory, Strong Uniformity (SU), that postulates that ϕ-features and discourse-configurational features of topic and focus—what I will call δ-features in this monograph—occur as a uniform set across all languages, and they work in tandem to give rise to many of the kinds of operations we see in narrow syntax. This was my way of trying to unify the agreement and agreementless languages. Just as the universal principles in GB laid the ground for parametric variations, the uniform set of grammatical features leads to variation in highly restricted ways. The various ϕ-features and δ-features originate at C (e.g., Chomsky 2005, 2007; Richards 2007; Miyagawa 2010), and some may be inherited by T. Once a feature settles in its final position, it interacts with items accessible in its local domain, and these interactions combine to endow the system with rich forms of expression that we call human language.

The present monograph came out of an effort to substantially extend the study of SU both conceptually and empirically. A number of fortunate things happened to make this possible. In the spring terms of 2013, 2014, and 2015, I was invited to teach an undergraduate linguistics course at the International Christian University (ICU) in Tokyo, where I started as an undergraduate linguistics student in the 1970s. I wanted to teach about SU, but in order to convey the basic ideas to students who did not have a substantial background in linguistics, it was necessary to shed much of the technical jargon and distill the ideas to their essence. To be convincing, I had to come up with a much larger set of data to justify and extend the ideas than what I had in the earlier monograph. Through this exercise, I discovered many phenomena from a variety of languages that I previously did not know about, and those phenomena helped to give further credence to various aspects of SU, sometimes even extending the notion beyond the original concept.

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Sometimes one gets lucky. One problem left over from the earlier monograph was that SU made a number of predictions I could not convincingly substantiate. In the fall of 2011, Karlos Arregi, who was visiting the MIT linguistics department, happened to walk into my office to talk about his days as a graduate student at MIT, and, in passing, told me that there is a phenomenon in Basque that is similar to politeness marking in Japanese. It just so happened that I was struggling with a prediction that SU made about Japanese—that there ought to be ϕ-feature agreement at C in Japanese. The problem, of course, is that Japanese is a quintessential agreementless language! I was playing with the idea that the politeness marker *-des-/-mas-* may be this ϕ-feature agreement because it appears to enter into an agreement of sorts with the hearer. Also, I argued earlier (Miyagawa 1987) that the politeness marker is borne by C, which is where SU predicts that the ϕ-feature should occur in Japanese. But I had no real evidence that *-des-/-mas-* was a form of ϕ-feature agreement. When I looked at the Basque data that Karlos told me about, it was one of those moments of sheer joy. The Basque data is, indeed, politeness marking, just like in Japanese, but what makes it so remarkable is that the politeness is marked with the regular 2nd person agreement morpheme despite the fact that there is no 2nd person entity in the sentence. And it is borne by C (Oyharçabal 1993). It is a form of so-called allocutive agreement, which is a kind of agreement that agrees with a discourse participant. I developed the analysis of allocutive agreement within SU in an article in which I combined the Basque and Japanese data (Miyagawa 2012a). In the present monograph, I extend that work by combining it with the results of a study on Japanese and Spanish that I worked on with Ángel Jiménez-Fernández (Jiménez-Fernández and Miyagawa 2014) and with recent work by Vera Zu (2015, forthcoming) that extends the work on Basque by Oyharçabal (1993).

In 2013, Louis Liu, then a graduate student at Harvard, told me something about the Chinese subject *pro* that was astonishing. Unlike its counterparts in Japanese and Romance, the Chinese subject *pro* cannot refer easily to discourse referents without a very rich context. Within the sentence, it can only refer to another subject. The only part that didn't surprise me was that this subject must be local, something Jim Huang (1984) taught us a long time ago. None of these properties are found in Japanese and Romance. In Japanese and Romance, the *pro* easily finds a discourse referent without much of a context, and the *pro* can refer to non-subjects as well as subjects. Finally, it isn't restricted to the closest subject for its antecedent. In working closely with Chinese-speaking linguists in Taiwan and the Mainland, and in my MIT course, it because apparent that the Chinese subject *pro* behaves differently when it refers to a subject within its own sentence and when it refers to a discourse entity. A close

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examination showed something surprising about SU at work: when the subject *pro* refers to a subject within the sentence, the antecedent relation is made possible by a ϕ-feature, while when the *pro* refers to an entity in discourse, it depends on the δ-feature of topic. They are in complementary distribution. In this way the Chinese subject *pro* turns out to be a wonderful demonstration of the SU tenet that ϕ-features and δ-features are computationally equivalent for operations within narrow syntax. The Chinese *pro* can go with one (ϕ-feature), but if it isn't available, it moves on to the other option (δ-feature). The differences between the Chinese subject *pro* and its Japanese counterpart found strong empirical support from a large-scale survey Lulu Zhang kindly conducted for me.

Armed with the newly developed ideas of SU, I also went back to topics I worked on earlier, the *wh*-word 'why' and *ga/no* conversion. For the *wh*-word 'why', having studied Ochi's (2014) article, I noticed an interesting gap in the paradigm: 'why' can externally merge directly into its scope position in many languages, but not in Japanese (and presumably Korean). Japanese just happens to be the type of language in which the δ-feature of focus does not occur at C but rather at T. I show that external merge of 'why' at its scope position is only possible if there is focus at C. Note that this variation differs from the language typology of *wh*-in-situ. Chinese, a stereotypical *wh*-in-situ language, nevertheless allows an externally merged 'why', *zenme* 'how come', at scope position, because Chinese, like English and Spanish, has the δ-feature of focus at C.

One question that comes up often about SU is, does the δ-feature require activation like the ϕ-feature? If they are computationally equivalent, it would be reasonable to assume so. In looking at the well-known phenomenon of *ga/no* conversion, and combining it with the recent work I did with Nobuaki Nishioka and Hedde Zeijlstra (Miyagawa, Nishioka, and Zeijlstra 2016), I argue that ϕ- and δ-features indeed require the same activation, and that activation is by Case. This is a desirable outcome for SU, which considers these two types of grammatical features to be computationally equivalent.

A large number of people helped with the writing of this monograph over the past several years. I thank the students in my undergraduate linguistics classes at the ICU for helping me to clarify SU and to find additional empirical evidence for it. The students in the 2015 ICU class developed a dataset for a large-scale survey about pro-drop in Japanese which was administered in undergraduate classes taught by Masa Koizumi, Masao Ochi, and Yukiko Ueda. Lulu Zhang, then at Oxford, carried out a Chinese version of the survey that she did online, and the remarkable results helped to reinforce an important point about the subject *pro* in Chinese as compared to its Japanese counterpart. The "Chinese language team" of Barry Yang, Christine Mail, and Kazunori

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Kikushima was always at the ready with answers to my questions, and they helped to develop the key ideas on pro-drop in Chinese within SU. I also thank Yuyin He for carefully checking the Chinese data. The "Kyushu team" of Masako Maeda, Tomonori Otsuka, and Rumi Takagi provided valuable data and responded with patience to innumerable questions about judgments. Special thanks to Jim Huang, who provided detailed comments on parts of chapter 3, including some points that I could not sufficiently address. Earlier versions of various parts of this monograph were presented at Chukyo University, the 39th GLOW at Göttingen, the ICU, Kanda University of International Studies, Keio University, the Linguistic Society of America (Boston), NYU, Tohoku University, the University of Brasília, the University of Cambridge, the University of Ghent, the University of Kyushu, the University of Osaka, the University of São Paulo, the University of Seville, and many other places. I also taught two classes at MIT, including a seminar in the fall of 2015 with Norvin Richards, in which I was able to present the content of much of the present monograph. I thank the students in my classes and those in the audience at my talks for the suggestions and criticism that helped to improve and shape the work contained in this monograph. Others who have helped include Sylvain Bromberger, Lisa Cheng, Ángel Jiménez-Fernández, Liliane Haegeman, Nobuko Hasegawa, Mary Kato, Richie Kayne, Jaklin Kornfilt, Louis Liu, Snejana Lovtcheva, Alec Marantz, Nobuaki Nishioka, Vitor Nóbrega, Masashi Nomura, Jairo Nunes, Masao Ochi, Despina Oikonomou, Yohei Oseki, Carlos Muñoz Pérez, Bruna Pereira, Eloisa Pilati, Vassilis Spyropoulos, Mikami Suguru, Amanda Swenson, Katsuo Tamaoka, Edwin Tsai, Helena Guerra Vicente, Song Wei, Tomo Yoshida, Hedde Zeijlstra, and Vera Zu. Finally, I thank my colleagues in my department for their suggestions and support. These include Noam Chomsky, Danny Fox, Irene Heim, Sabine Iatridou, Jay Keyser, David Pesetsky, Norvin Richards, Donca Steriade, and Kai von Fintel. It was Jay Keyser who, having seen an earlier version of chapters 2 and 3 as an article, suggested that I write a monograph. It was not too long after I had completed my 2010 monograph, so writing another monograph was the farthest thing from my mind. Had Jay not suggested it, I probably would have broken up what has gone into this monograph into several not necessarily coherent pieces. I also thank Sarah Courtney, who copyedited the manuscript, for the detailed comments that substantially improved the monograph. Thanks go as well to David Hill for creating the index. Finally, I thank the two anonymous reviewers who provided numerous useful suggestions, including the suggestion to change the title from the earlier *Agreements Everywhere*. I thank the "Leiden team" of Lisa Cheng, Roberta D'Alessandro, and Johan Rooryck for helping me to come up with the final title.

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1 Introduction: Strong Uniformity

1.1 Introduction

A linguistic theory should minimally tell us the following:

- How are natural languages the same?
- In what ways can they be different?

Government and Binding (GB) theory (Chomsky 1981) had a straightforward answer to these questions. All languages contain the same set of principles such as subjacency and the Empty Category Principle; where the languages differ is in the setting of the parameter built into many of the principles, the head parameter being one such example. This vision allowed the theory to attain not only descriptive adequacy, but explanatory adequacy as well—in the ideal, of course—because this framework gave what appeared at the time to be a compelling picture of the initial state of Universal Grammar. However, as we learned more about the nature of these principles, it became evident that many, if not all, of them are a description of the problem they are supposed to solve. Why, for example, should a movement that crosses two nodes of a particular kind lead to ungrammaticality? Subjacency simply builds this observation into a condition on movement, failing to tell us anything beyond what we already know to be the problem. Chomsky (1986) begins to address this issue, but it is in the Minimalist Program (MP) (Chomsky 1993, 1995) that the problem inherent to GB comes fully into the light, and an effort is made to rid the theory of anything that does not have independent and intuitive motivation. As Chomsky states (1995, 233), the assumptions of earlier theories were often "of roughly the order of complexity of what is to be explained." While the MP's transcending of principles-and-parameters is progress, it leaves us without an answer to either of the questions posed at the outset. Without universal principles, it is not obvious how we state the uniform nature of human language, and without principles, there can be

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no parameters that can be built into them to capture the potential for variation that languages exhibit. Recognizing the vacuum left by ridding the theory of universal principles, Chomsky suggests the Uniformity Principle (UP) in their place.

(1) Uniformity Principle (Chomsky 2001, 2)
In the absence of compelling evidence to the contrary, assume languages to be uniform, with variety restricted to easily detectable properties of utterances.

To understand the UP, we need to have more specificity to both parts of the statement. In assuming languages to be uniform, precisely what are the elements that we assume are shared by all languages? In what ways can languages vary within this uniform profile? It surely is not the case that the detectable properties of utterances are random in nature, just as the parameters in GB are not random in their formulation. I will attempt to provide a concrete instantiation of both portions of the UP by extending the proposal in Miyagawa (2010), in order to understand both the content of the universal statement and the precise nature of the variation being described in the UP. As we will see, the result is not radically different from the way that principles-and-parameters in GB is conceptualized, and it is also consistent with recent discussion of "microparameters" by Baker (2008), Kayne (2005), and many others.

1.2 Strong Uniformity: An Instantiation of the Uniformity Principle

In Miyagawa (2010), I focus on elements in linguistic theory that are responsible for triggering the operation of movement. Unlike in GB, in which movement is viewed as entirely optional and Move α moves anything, anywhere, at any time (Chomsky 1981), in MP, virtually every instance of movement is considered to be last resort (Chomsky 1995). What triggers it are grammatical features that must somehow be checked off. These grammatical features vary from language to language, the most common of them being ϕ-features.[1] Given the central role that grammatical features have come to play in linguistic theory, it is only natural to ask which grammatical features are found in which languages, and what accounts for the variation. To answer this question, I proposed Strong Uniformity.

(2) Strong Uniformity (Miyagawa 2010)
Every language shares the same set of grammatical features, and every language overtly manifests these features.

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What Strong Uniformity states, in the spirit of the UP, is that the same stock of grammatical features is found in every language. The idea that these features overtly appear in some fashion provides the basis for delineating the possible variations in how the grammatical features manifest themselves. Right away, a whole host of questions arise. How does one account for the variety of ϕ-feature agreements across languages, from an impoverished set like in English to the rich agreement of Romance? What about languages that do not evidence any agreement, such as Chinese, Japanese, and Korean?

There are a variety of ϕ-feature agreements, but in this monograph I will mostly focus on person agreement, since it is person agreement that is operative in the kinds of phenomena I will look at, such as pro-drop and allocutive agreement. For the second question, I argue that there are two types of grammatical features, ϕ-features and what Kiss (1995) calls the "discourse-configurational" features, which are topic and focus. In some languages, topic/focus plays the same role as agreement in triggering movement to positions such as Spec,TP. By Strong Uniformity, every language has both ϕ-feature agreement and topic/focus, making all languages uniform. In this monograph, I will often use δ to stand for discourse-configurational features without distinguishing between topic and focus.

These grammatical features have a similar status as the universal principles in GB: they are shared by all languages. What differentiates the grammatical features from the universal principles is that the grammatical features actually occur in the language as detectable entities, and they are closely associated with linguistic operations (Chomsky 2005, 2008; Miyagawa 2010), hence there is an independent and intuitive motivation for including them in the theory. What remains is how languages can vary within the framework of Strong Uniformity.

1.2.1 Examples of Typology Based on Strong Uniformity

I begin with the assumption that all grammatical features start out on a phase head; I will focus in this monograph on the phase head C (Chomsky 2005, 2007; Miyagawa 2010; Richards 2007). These grammatical features may be inherited by T in certain circumstances. As I noted in Miyagawa (2010), the patterns of inheritance can capture variations across languages. In that work, I only dealt with two such patterns.

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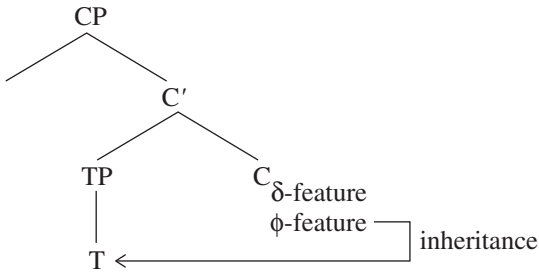
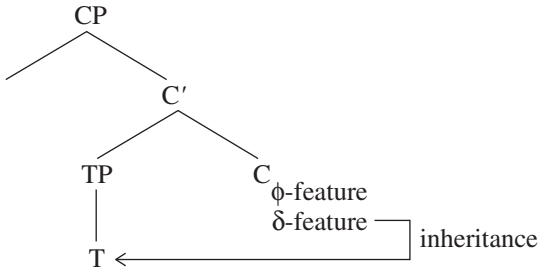
(3) Agreement-based languages



(4) Discourse-configurational languages



In (3), the ϕ-feature agreement is inherited by T, leading to what I termed an agreement-based language such as English. In (4), the δ-feature is inherited by T, resulting in a discourse-configurational language such as Japanese. In this monograph, I will explore all the basic variations predicted by this approach.

Let us consider the two types of grammatical features, the ϕ-feature and the δ-feature. Without making further distinctions, such as dividing the δ-feature into topic and focus, we predict four different types of languages: (I) ϕ-feature on C, δ-feature on T; (II) δ-feature on C, ϕ-feature on T; (III) both ϕ-feature and δ-feature on T; and (IV) both ϕ-feature and δ-feature on C. These are given below with representative languages.

(5) Some predicted languages

Category I: C_{ϕ}, T_{δ}	– Japanese
Category II: C_{δ}, T_{ϕ}	– English
Category III: C, $T_{\phi/\delta}$	– Spanish
Category IV: $C_{\phi/\delta}$, T	– Dinka

In this monograph, I will look at each of these possibilities, and in fact more. As we will see, there are cases where the δ-feature must be divided into topic and focus, as noted originally by Kiss (1995). For example, Spanish has

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been argued to be a Category III language, with the δ-feature occurring on T (Jiménez-Fernández 2010, Jiménez-Fernández and Miyagawa 2014). However, this turns out to hold only for the δ-feature of topic; the other δ-feature, focus, occurs on C in Spanish. We will see this in chapter 4 when we look at the various forms of 'why' questions across languages.

Also, the δ-feature of topic is not a unitary feature but comes in at least three versions: Aboutness, Contrastive, and Familiar/Given (Frascarelli and Hinterhölzl 2007). As we will see in chapter 2, while Contrastive and Familiar/Given topics are subject to the parametric variation of either occurring on C or being inherited by T, the Aboutness topic uniformly occurs on C across all languages. It is simply the nature of the Aboutness topic that it must have the entire clause as its domain.

Below, I will discuss two instances of the typology given above: the occurrence of the δ-feature topic at T, which we find in Categories I and III; and the occurrence of both types of grammatical feature, the ϕ- and the δ-feature, at C, which we find in Category IV. In the chapters to follow, I will motivate other parts of the typology.

1.2.1.1 δ-Feature at T

Categories I and III have the δ-feature at T. I will show this with Japanese (I) and Spanish (III). In both languages, I will take up topic movement, which applies within the TP domain in these languages. The points I will demonstrate are that the movement is indeed for topicalization, which is well-known in Spanish, and that it is A-movement, hence a movement that occurs within the TP domain, a point already extensively argued for by Saito (1985, 1992).

The type of movement in Japanese that I take up in Miyagawa (2010) that is triggered by a δ-feature on T is scrambling. As already established in the literature, clause-bound scrambling has properties of A-movement. To show this, we can turn to some typical properties of A-movement: A-movement can overcome a Weak Crossover (WCO) violation, and it is able to create a new binder (Mahajan 1990).

(6) Who$_i$ t_i seems to his$_i$ mother t_i to be smart?

(7) John$_i$ seems to himself$_i$ to be t_i smart.

In (6) the *wh*-phrase *who* undergoes A-movement from the subordinate subject position to the matrix Spec,TP, crossing the pronoun *his*. Despite this, the sentence is grammatical because a WCO violation only occurs if there is a variable and a pronoun coreferential with the variable that the variable fails to c-command. A-movement does not create a variable because it is not an operator movement, so in (8) the trace and the pronoun in the subordinate subject position are not subject to WCO. In (9), *John* A-moves to

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Spec,TP and is able to bind *himself* from this new position. Presumably, such binding only takes place from A-positions. We can see below that A′-movement is incapable of suppressing a WCO violation; it also cannot create a new binder.

(8) ?*Who$_i$ does his$_i$ mother love t_i?

(9) *To whom$_i$ did each other$_i$'s friends introduce Mary t_i?

The following are examples of clause-bound scrambling in Japanese that demonstrate that it is A-movement; these examples are modeled after Mahajan's work, and similar examples are discussed by Hoji (1985), Saito (1992), Tada (1993), and Yoshimura (1989, 1992). As shown in the (b) example, A-scrambling can suppress a WCO violation.

(10) a. *[Kinoo *pro*$_i$ *pro*$_j$ atta hito$_i$]-ga dare-o$_j$ hihansita no?
yesterday met person-NOM who-ACC criticized Q
Lit. 'The person who met (him) yesterday criticized whom?'
b. Dare-o$_j$ [kinoo *pro*$_i$ *pro*$_j$ atta hito$_i$]-ga t_j hihansita no?
who-ACC yesterday met person-NOM criticized Q
Lit. 'Who, the person who met (him) yesterday criticized?'

A-movement can also create a new binder (Mahajan 1990, Saito 1992).

(11) a. *Otagai$_i$-no sensei-ga [Taroo-to Hanako]$_i$-o
each other-GEN teacher-NOM Taro-and Hanako-ACC
suisensita.
recommended
'Each other's teachers recommended Taro and Hanako.'
b. Taroo-to Hanako-o$_i$ otagai-no sensei-ga t_i
Taro-and Hanako-ACC each other-GEN teacher-NOM
suisensita.
recommended
'Taro and Hanako, each other's teachers recommended.'

Unlike this kind of local scrambling, long-distance scrambling solely has A′ properties. Long-distance scrambling is unable to suppress a WCO violation and it cannot create a new binder (Mahajan 1990, Saito 1992, Tada 1993).

(12) *Dare-o$_j$ [kinoo *pro*$_i$ *pro*$_j$ atta hito$_i$]-ga
who-ACC yesterday met person-NOM
[Taroo-ga t_j sitteiru to] itta no?
Taro-NOM know C said Q
Lit. 'Who, the person who met (him) yesterday said that Taro knows (him)?'

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(13) ?*Taroo-to Hanako-o$_i$ otagai-no sensei-ga
Taro-and Hanako-ACC each other-GEN teacher-NOM
[koutyou-ga t_i sikaru to] omotta.
principal scold C thought
Lit. 'Taro and Hanako, each other's teachers thought that the principal will scold.'

Having established that clause-bound scrambling may be A-movement, let us move on to the evidence that its function may be topicalization. One piece of evidence comes from acquisition (Miyagawa 2010). Hayashibe (1975) noted that there appears to be a period, sometime up to five years of age, in which children tend to interpret scrambled sentences like (14b) as if they were non-scrambled SOV sentences like (14a), completely ignoring the case marking on the arguments.

(14) a. SOV: Kamesan-ga ahirusan-o osimasita.
turtle-NOM duck-ACC pushed
'A turtle pushed a duck.'
b. OSV: Ahirusan-o kamesan-ga osimasita.
duck-ACC turtle-NOM pushed

Hayashibe concludes from this that scrambling is acquired late in language development. However, Otsu (1994) shows that children before or around the age of three have no problem with scrambling when they are presented with a discourse context that makes the scrambled sentence sound natural.

c. Kooen-ni ahirusan-ga imasita.
park-in duck-NOM was
Sono ahirusan-o kamesan-ga osimasita.
the duck-ACC turtle-NOM pushed
'There was a duck in the park. A turtle pushed the duck.'

What Otsu has shown is that scrambling of the object, 'the duck-ACC', is possible if there is prior context that establishes it as the discourse topic.[2]

Spanish is a typical agreement language in that the ϕ-feature agreement occurs on T; given the rich nature of agreement, it is able to license pro-drop.

(15) ___ baila bien. (Jaeggli 1982)
dance-3SG well
'She dances well.'

At the same time, the δ-feature of topic apparently lowers to T as well (Jiménez-Fernández 2010, Jiménez-Fernández and Miyagawa 2014). This

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topic construction, which Jiménez-Fernández calls topic dislocation, is also called Clitic Left Dislocation (CLLD) in the literature.

(16) a. Estos libros, Juan los leyó ayer.
these books Juan them read yesterday
'These books, Juan read yesterday.'
b. Algunos libros, Juan los leyó ayer.
some books Juan them read yesterday
'Some books, Juan read yesterday.' (Arregi 2003)

As we saw with Japanese, if this topic dislocation in Spanish is applying within the TP domain, it is an instance of A-movement. Two pieces of evidence that it is indeed A-movement are Floating Quantifiers (FQs) and binding. On the basis of Catalan data, López (2009) concludes that FQs are allowed only in A-movement, not in A′-movement (Lasnik 2003).[3] We see the same for Spanish, where A-movement such as raising and passivization is compatible with FQs.

(17) a. Los padres parecen haber asistido todos a la reunión.
the parents seem-PRES.3PL to.have attended all to the meeting
'The parents seem to have all attended the meeting.'
b. Los exámenes han sido corregidos todos.
the exams have-PRF.3PL been corrected all
'The exams have all been graded.'

If topic displacement involves A-movement, it should allow FQs. We see this in (18) (Jiménez-Fernández 2010).

(18) Los exámenes los ha corregido todos este profesor.
the exams CL have-PRF.3SG corrected all this teacher
'This teacher has corrected all the exams.'

The second piece of evidence that topic displacement, or CLLD, in Spanish applies within TP relates to the fact that it exhibits A-properties (Jiménez-Fernández 2010). Specifically, it is able to create a new binder, which is clearly an indication of A-movement.

(19) a. *Su_i enfermera llamó al $paciente_i$.
self's nurse call-PST.3SG to.the patient
'His/her nurse called the patient.'
b. Al $paciente_i$ lo llamó su_i enfermera.
to.the patient CL call-PST.3SG self's nurse
'The patient was called by his/her nurse.'

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While the anaphor fails to be bound in (19a), leftward topicalization of the antecedent makes it possible to create a binder for the anaphor, thus making (19b) grammatical.[4]

1.2.1.2 Agreement at C: Dinka

Two types of languages are predicted to have agreement at C: Category I (C_{ϕ}, T_{δ}) and Category IV ($C_{\phi/\delta}$, T). Reversing the order, I will first discuss Category IV. According to the typology, a Category IV language has both types of grammatical features, ϕ and δ, at C. This means that such a language would have, for example, topicalization to Spec,CP and the ϕ-feature on C would agree with this topic.[5]

A language that evidences these properties of Category IV is Dinka, a Nilo-Saharan language spoken in southern Sudan. The analysis here is drawn from van Urk (2015). Dinka is a V2 language, with the verbal element—either the main verb or an auxiliary element—occurring at C. What occurs as the first element preceding the V2 verbal item is normally a topic. In the first example below, the topic is the subject, and C agrees with it in person and number (singular). In the second example, the topic is the object, and C agrees with this 3rd person singular object. In the third example, the topic is a plural subject, and the agreement at C inflects for plurality as well as 3rd person.

(20) a. Àyén à-càm cuı̱̀n nè̱ pàl.
Ayen 3SG-eat.SV food P knife.
'Ayen is eating food with a knife.'

b. Cu ı̱̂n à-cɛ́ɛm Áyén nè̱ pàl.
food 3SG-eat.OV Ayen.NOM P knife
'Food, Ayen is eating with a knife.'

c. Kɔ́c áa-cé̱ rɔ̀th tı̱̂ŋ.
people 3PL-PRF.SV self.PL see
'The people have seen themselves.'

What occurs in Spec,CP need not always be a topic. Dinka is a *wh*-movement language, and Spec,CP may host a wh-phrase. In that case, C agrees with the *wh*-phrase moved into Spec,CP.[6]

(21) Agreement with *wh*-phrases
a. Ye kɔ̀ɔ̀c-kó è̱-kè-thɛ̀t?
Q people.CS1-which.PL PST-3PL-cook.SV
'Which people were cooking?'

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b. Ye kɔ̀ɔ̀c-kó ɛ̱̀-kè-cɪ̱́ɪ̱ Áyén kè gàam gàlàm?
Q people.CS1-which.PL PST-3PL-PRF.OV Ayen-NOM PL give.NF pen
'Which people had Ayen given a pen to?'

c. Ye kɔ̀ɔ̀c-kó ɛ̱̀-kè-yè kè tàak,
Q people.CS1-which.PL PST-3PL-HAB.2SG PL think.NF
[$_{CP}$ ɛ̱̀-kè-cɪ̱́ɪ̱ Áyén kè gàam gàlàm]?
PST-3P-PRF.OV Ayen-NOM PL give.NF pen
'Which people did (s)he think that Ayen had given a pen to?'

Wh-phrases carry focus, hence, in these cases, presumably C has the δ-feature of focus. Whether the δ-feature is topic or focus, it occurs at C along with ϕ-feature agreement, making Dinka a Category IV language.

Based on the discussion above, we have the following example languages for each of the typological categories.

(22) Some predicted languages
Category I: C_{ϕ}, T_{δ} – Japanese
Category II: C_{δ}, T_{ϕ} – English
Category III: C, $T_{\phi/\delta}$ – Spanish
Category IV: $C_{\phi/\delta}$, T – Dinka

1.3 Outline of the Monograph

In chapter 2, "Allocutive Agreement and the Root," I will look at agreement at C in Japanese. Japanese is traditionally considered to be a language without any agreement, yet Strong Uniformity predicts that it has ϕ-feature agreement that occurs at C. I will argue that the politeness marker *-mas-* (*-des-* for nominal) is this agreement at C. To make this argument, I will draw on the study of some dialects of Basque that exhibit a type of agreement called allocutive agreement, which agrees with one of the discourse participants, the speaker or the hearer. Basque allocutive agreement agrees with the hearer, hence it is 2nd person. Drawing on the work of Oyharçabal (1993), who gives arguments that Basque allocutive agreement is standard agreement, and not some other phenomenon, we will see that Basque allocutive agreement mirrors politeness marking in Japanese in both function (politeness) and position (at C). As agreement, the allocutive agreement requires a "goal," a 2nd person entity that can furnish the features for person, gender, number, and politeness level. I will argue that such an entity is part of the "performative analysis," originally proposed by Ross (1970) and recently updated by Speas and Tenny (2003). Speas and Tenny call the structure that contains the speaker and hearer representations the "speech act projection" (saP). I will show that the distribution

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of saP matches exactly the original conception of the root due to Emonds (1969). Thus, the "allocutive agreement" in Japanese, the politeness marker *-mas-*, occurs in the three environments Emonds specified as roots.

(23) Root
A root will mean either the highest S in a tree, an S immediately dominated by the highest S, or the reported S in direct discourse.
(Emonds 1969, 6)

In chapter 3, "Pro-Drop, E-Type Pronouns, and Agreement," I take up a topic that was extensively studied in the 1980s—the phenomenon of pro-drop. Kuroda (1965) suggested that the empty slots in Japanese sentences are pronominal in nature, an analysis that foreshadowed later works of Taraldsen (1978), J. Huang (1984), and Rizzi (1986), among many others. In the 1990s, starting with Huang (1991) and Otani and Whitman (1991), a new breed of what in the past would have been called pro-drop began to be discussed. At issue are cases in which an empty element in an argument position has an indefinite meaning that allows sloppy interpretation. Oku (1998), in a work that opened the door to the so-called argument ellipsis analysis, notes that in Japanese, the subject empty element may get either the strict or the sloppy interpretation.

(24) a. Mariko-wa [zibun-no kodomo-ga furansugo-o benkyoosuru to]
Mariko-TOP self-GEN child-NOM French-ACC study that
omotteiru.
think
Lit. 'Mariko thinks that self's child will study French.'
b. Haruna-wa [*e* surobeniago-o benkyoosuru to] omotteiru.
Haruna-TOP Slovenian-ACC study that think
Lit. 'Haruna thinks that *e* will study Slovenian.'
✓strict, ✓sloppy

In the context of (24a), the *e* in the subordinate subject position in (24b) may be interpreted as 'he/she', which would be the standard *pro* referring to Mariko's child, but it can also have the sloppy interpretation of 'Haruna's child'. Following Otani and Whitman (1991), Oku assumes that the sloppy interpretation, which arises from an indefinite expression, cannot be *pro*. He then proposes that the sloppy interpretation is made possible by a fully specified argument ('self's child') that has undergone ellipsis. He calls this argument ellipsis. Oku (1998) makes one additional observation that has led to an important body of work on the relationship between the possibility of sloppy interpretation and agreement. He notes that in the Spanish example below, only the strict reading is possible.

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(25) a. María cree que su propuesta será aceptada.
Maria believes that her proposal will.be accepted
'Maria believes that her proposal will be accepted.'
b. Juan también cree que *e* será aceptada.
Juan also believes that will.be accepted
Lit. 'Juan also believes that *e* will be accepted.' Strict/*sloppy

Oku suggests that the difference here is that the subject has agreement, and that this blocks the subject position from undergoing argument ellipsis. This is consistent with the observation by Taraldsen (1978) and Rizzi (1986) that rich agreement licenses pro-drop. Thus, if there is agreement, and the target of agreement—the subject—is empty, the agreement is sufficiently rich to license the *pro*. We would not expect anything else in that position, such as a covert fully specified argument. The idea that agreement blocks argument ellipsis has been reinforced and extended by a series of important works by Saito (2007) and Takahashi (2008a,b, 2013; Şener and Takahashi 2010).

One problem with Oku's observation is that there are languages such as Chinese and Malayalam that do not evidence any overt subject agreement, yet Takahashi reports that the subject position does not allow sloppy interpretation. I will draw on the work of Liu (2014) on Chinese and various works on Malayalam, including Swenson and Marty (2014), to show that these languages indeed have agreement that targets the subject even though the agreement is not pronounced. The evidence for it comes from the so-called blocking effect of anaphor binding. Having defended Oku's original observation even with languages that do not have overt agreement, I will then turn the table around and argue, following Oikonomou (to appear), that the empty element is a *pro*, as originally suggested by Kuroda (1965), even when it allows a sloppy interpretation. It is not argument ellipsis that gives rise to the sloppy interpretation. Cases have been reported of sloppy interpretation even with overt pronouns and they are presumed to have the E-type pronoun reading (Karttunen 1969; I have changed the example slightly to make it less provocative).

(26) The man who gave his paycheck to his wife was wiser than the man who gave it to his child.

The impersonal pronoun *it* allows an E-type pronoun interpretation which leads to it being reinterpreted as a fully specified noun phrase, *his paycheck*, where *his* stands for a variable. The idea that the sloppy interpretation is related to the E-type pronoun is similar to Tomioka's (2003) proposal that the element that gets this interpretation is type <e,t> (so a predicate); it must have

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Existential Closure, and it is type-shifted from predicate to individual. The proposal is also related to the "indefinite pronoun" idea of Hoji (1998), which I will discuss in some detail. I will argue along the lines of Oikonomou that the sloppy interpretation is due to an E-type pronoun interpretation of the *pro*. I will also correlate the difficulty of E-type pronoun interpretation with agreement being operative, thereby incorporating Oku's original idea without having to assume argument ellipsis.

Chinese is a Category II language, in which the δ-feature remains on C and the ϕ-feature is inherited by T. Adopting an idea of Sato (2015a,b), I will argue that the difficulty of sloppy interpretation has to do with *pro* being topicalized to Spec,CP in the relevant constructions. I will further argue that this topicalization is also what is operative in the agreement languages, such as Spanish, making sloppy interpretation difficult, although not impossible, as we will see. To show that the sloppy interpretation of the subject *pro* is readily available in Japanese but not so easily detectable in Chinese, I present two large-scale surveys, one on Japanese, the other on Chinese. We will see that while the Japanese speakers readily perceive the sloppy interpretation without the help of any additional context, the Chinese speakers rarely get the sloppy interpretation. However, if an appropriate context is provided to induce the sloppy interpretation, as many as 50% of the speakers report that they get the sloppy reading. I will suggest that these variations are due to factors—topicalization is the factor we take up—that render the example easy or difficult for interpreting the *pro* as an E-type pronoun.

In chapter 4, "On the Distribution and Structure of 'Why'," I take up two approaches to 'why': the movement analysis and the external-merge (EM) analysis, the latter originally due to Bromberger (1987, 1992) and Rizzi (1990), later extended by Ko (2005), Stepanov and Tsai (2008), and others. A well-known externally merged 'why' is *how come* (Collins 1991), which is merged directly into the Spec,CP where it takes scope. The lack of movement is indicated by the absence of Aux inversion (*How come you left the party early?*). While many languages have the EM option, a language such as Japanese apparently does not, leaving a gap in the paradigm for 'why'. It is not the case that this gap exists because Japanese is a *wh*-in-situ language. Chinese, another *wh*-in-situ language, has an EM 'why', *zenme* (Tsai 2008), that behaves similarly to *how come* in English. I argue that the gap in the paradigm for a language such as Japanese (and presumably Korean) is due to the fact that Japanese is a Category I language in which the δ-feature is inherited by T. This means that focus, a discourse feature, never occurs at C. I show that the EM option for 'why' requires focus at C, something that Chinese allows since it is a Category II language, in which the δ-feature of focus remains

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at C. In the literature, one ostensible piece of evidence for the EM nature of *naze* 'why' in Japanese is that it is unique among *wh*-phrases in being able to escape the intervention effect (Miyagawa 1997b). The intervention effect (Takahashi 1990, Rizzi 1992, Beck 1996a; the effect studied also in Hoji 1985) is a phenomenon in which the covert movement of a *wh*-phrase is blocked when it is c-commanded by certain types of expressions such as a quantifier or something with focus.[7] Takahashi (1990) noted that the NPI focus marker *-sika* triggers an intervention effect.

(27) *Hanako-sika dare-ni erab-are-nakat-ta no?
Hanako-only who-by choose-PASS-NEG-PST Q
'By whom was only Hanako chosen?'

The occurrence of 'only Hanako' in the subject position blocks the *wh*-phrase 'by whom' from taking scope. All *wh*-phrases are subject to this intervention effect save one: 'why' may circumvent the effect of the intervenor and be able to take proper scope (Miyagawa 1997b).

(28) Hanako-sika naze erab-are-nakat-ta no?
Hanako-only why choose-PASS-NEG-PST Q
'Why was only Hanako chosen?'

Ko (2005) shows that the same anti-intervention effect shows up in Korean.

(29) a. ***Amwuto/*John-pakkey** mwues-ul ilk-ci-anh-ass-ni?
Anyone/John-only what-ACC read-CI-not-PST-Q
'What did no one/only John read?' (Beck and Kim 1997)
b. **Amwuto/?John-pakkey** way ku chayk-ul ilk-ci-anh-ass-ni?
Anyone/John-only why that book-ACC read CI-not-PST-Q
'Why did no one/only John read that book?' (Ko 2005)

In (29a), the argument *wh*-phrase 'what' cannot take scope because of the c-commanding intervenor, 'anyone'/'only John', in the subject position. As in Japanese, 'why' is able to escape this intervention effect, as we see in (29b).

In contrast, in Chinese 'why' cannot escape the effect of intervention (Yang 2012).

(30) *Zhiyou Zhangsan weishenme cizhi?
only Zhangsan why$_{ADV}$ resign
'Why did only Zhangsan resign?'

I will argue that it is no accident that Japanese and Korean, but not Chinese, have the anti-intervention effect. Drawing on the work of Beck (1995) and Shlonsky and Soare (2011), I will propose a structure for 'why' that, looked

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at from a Strong Uniformity perspective, predicts that only languages such as Japanese and Korean have the anti-intervention effect with 'why'. These are *wh*-in-situ languages and Category I languages in which the δ-feature is inherited by T. In addition to *naze* 'why', I will look at another expression in Japanese that has a similar meaning, the use of 'what' for 'why'.

(31) Taroo-wa nani-o awatete-iru no?
Taro-TOP what-ACC panick-ing Q
'Why (in the hell) is Taro panicking?'

A similar use of 'what' for 'why' is found in other languages; the following is a German example from Ochi (2014).

(32) Was tadeln Sie Hans denn?
what blame you Hans
'Why (the hell) are you blaming Hans?'

I will show that this usage of 'what' for 'why' in Japanese differs from the regular 'why' word *naze* in having a structure that is causative in nature. As part of the argument for this, I show that this construction evidences the "deep" double-*o* constraint proposed by Harada (1973, 1975) based on the causative construction.

In chapter 5, "*Ga/No* Conversion, Strong Uniformity, and Focus," I look at the well-known phenomenon of genitive subjects in Japanese. This is a phenomenon a found in many Altaic languages, though there are many variations across these languages. The basic fact in Japanese is that the subject of a relative clause or a complex NP may be marked with the nominative *-ga* or the genitive *-no*.

(33) Hanako-ga/-no katta hon
Hanako-NOM/GEN bought book
'the book that Hanako bought'

Two competing theories of how to account for the occurrence of the genitive *-no* appear in the literature, the D-licensing and C-licensing approaches. In the D-licensing approach, linguists key in on the fact that there must be a nominal head to license the genitive, and this is consistent with the nominal phrase in Japanese, where everything must be marked with the genitive.

(34) [$_{DP}$ Hanako-**no** gakkai-de-**no** Taroo-**no** hihan]
Hanako-**GEN** conference-at-**GEN** Taro-**GEN** criticism
'Hanako's criticism of Taro at the conference'

The C-licensing approach focuses on the morphology of the predicate: the prenominal predicate is in an adnominal form, although the actual distinction

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between adnominal and finite was lost hundreds of years ago except for the copula (*na* vs. *da*). The idea is that despite the loss of morphological difference, the actual difference still exists between adnominal and finite inflections. I will show that the *ga/no* construction provides further evidence for Strong Uniformity. The key observation, by Akaso and Haraguchi (2010, 2011), is that focus eliminates the possibility of genitive marking on the subject.

(35) Taroo-dake-ga/*-no nonda kusuri
Taro-only-NOM/GEN took medicine
'medicine that only Taro took'

This is predicted on the D-licensing analysis viewed within Strong Uniformity. D-licensing states that for the genitive to be licensed, the relative clause must be a TP, not a CP. It is the same as the exceptional case marking construction in English, where the lack of a CP layer allows a higher head to assign Case to it. Because focus requires C to furnish the pertinent feature, the occurrence of focus naturally leads to the occurrence of C, and that in principle should block the possibility of the genitive subject under D-licensing, which assumes that only a TP relative clause allows a genitive subject. However, Ochi (in press) observes that focus is possible with genitive subjects if the focus occurs on an adjunct.

(36) kinoo/sukosi-dake Taroo-no nonda kusuri
yesterday/little-only Taro-GEN took medicine
'the medicine that Taro took only yesterday/only a little of'

Here, the focus marking is on the adjunct time adverbial 'only yesterday' or the quantity adverbial 'only a little of'.

What I will show is that this argument/adjunct asymmetry for focus marking in the *ga/no* conversion construction reflects a fundamental point about Strong Uniformity. Strong Uniformity holds that ϕ-features and δ-features are computationally equivalent as far as narrow-syntax operations are concerned. I will argue that the argument/adjunct asymmetry in focus marking of the *ga/no* conversion construction shows that activation must trigger the agreement involving a δ-feature, in particular, focus agreement. The activation we see in *ga/no* conversion is Case, just as we find Case for activation for ϕ-feature agreement (e.g., Chomsky 2001). Although the actual case system for δ-feature agreement is slightly different—what Rackowski (2002) calls Case Agreement—it nevertheless operates on the familiar case distinctions nominative, accusative, dative, and so forth. This analysis provides evidence for the Strong Uniformity notion that the two types of grammatical features are computationally equivalent. Together with what we will see in chapter 2

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about allocutive agreement and in chapter 3 about the Chinese subject *pro*, which depends on either the ϕ-feature of person agreement or the δ-feature of topic for participating in coreference, the picture emerges of human language that is uniform in that it contains a uniform set of grammatical features, with variation arising from where these grammatical features may occur in the structure and how they are used by language to implement the various operations that make human language the dynamic and expressive system that it is.

Sections 1.1 and 1.2 are adapted from Miyagawa (2013). I am grateful to the English Linguistic Society of Japan for allowing me to use the article from its fine journal, *English Linguistics*.

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2 Allocutive Agreement and the Root

2.1 Agreement at C: Japanese

According to Strong Uniformity, a Category I language such as Japanese should have ϕ-feature agreement borne by C.

(1) Some predicted languages
Category I: C_{ϕ}, T_{δ} – Japanese
Category II: C_{δ}, T_{ϕ} – English
Category III: C, $T_{\phi/\delta}$ – Spanish
Category IV: $C_{\phi/\delta}$, T – Dinka

This is in complete opposition to the standard view that Japanese is an agreementless language. I will argue that the politeness marking on the predicate is precisely the ϕ-feature agreement predicted by Strong Uniformity to occur at C in Japanese.

The politeness marking occurs as part of the verbal morphology (or nominal morphology in a different paradigm). The two sentences below both mean 'I ate pizza', with the first example having the politeness marker *-mas-*, so that this sentence would be uttered to an addressee who is socially superior to the speaker (Harada 1976). The second example is in the plain form, and would typically be uttered to a friend or a child.

(2) a. Watasi-wa piza-o tabe-**mas**-u. (formal)
I-TOP pizza-ACC eat-MAS-PRS
'I will eat pizza.'
b. Watasi-wa piza-o tabe-ru. (colloquial)
I-TOP pizza-ACC eat-PRS
'I will eat pizza.'

What I will argue is that this politeness marking parallels what we see in languages such as French in which the agreement varies according to the colloquial/formal nature of the subject pronoun.

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(3) a. Tu danses.
you dance.2SG
'You dance.'
b. Vous dansez.
you dance.2SG/PL.POLITE
'You dance.'

Like in French, the politeness marking agrees with a 2nd person entity. Unlike French, the politeness marking in Japanese does not agree with the subject, but rather with some representation of the addressee.

(4) Otooto-wa ki-mas-u.
my.kid.brother-TOP come-MAS-PRS
'My kid brother will come.'

The subject of this sentence is 'my kid brother', someone that you would not normally show politeness to. The fact that *-mas-* is well-formed indicates that the politeness is directed not at the referent of the subject but at the addressee, who likely is someone socially superior to the speaker.

The Japanese politeness marking differs from French also in its distribution. In French the inflection expressing the colloquial/formal distinction may occur in all kinds of embedded constructions.

(5) a. Si tu trouves le livre, appelle-moi.
if you find-2SG the book, call-me
'If you find the book, call me.'
b. Je regrette que tu ne sois pas d'accord.
I regret that you NE be-SBJV not agreed
'I regret that you do not agree.'

In contrast, *-mas-* is highly restricted (Harada 1976); as I note in Miyagawa (2012a), its distribution essentially matches the original notion of the *root* due to Emonds (1969).

(6) Root
A root will mean either the highest S in a tree, an S immediately dominated by the highest S, or the reported S in direct discourse. (Emonds 1969, 6)

The following, taken from Emonds (1969), exemplifies the three root environments where the root transformation of Negative Constituent Preposing may occur; the fourth example shows a non-root environment that does not allow this operation.

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(7) a. Never had I had to borrow money.
b. Because never had I had to borrow money, I have a lot saved.
c. John said that never had he had to borrow money.
d. *The fact that never had he had to borrow money is well-known.

The following examples show that the politeness marking *-mas-* may occur in the three root environments (Miyagawa 2012a).

(8) a. Highest S
Hanako-wa ki-mas-u.
Hanako-TOP come-MAS-PRS
'Hanako will come.'
b. S dominated by highest S
Hanako-ga ki-mas-u kara, ie-ni ite-kudasai.
Hanako-NOM come-MAS-PRS because home-at be-please
'Because Hanako will come, please be at home.'
c. Reported S in direct discourse
Taroo-wa Hanako-ga ki-mas-u to itta.
Taro-TOP Hanako-NOM come-MAS-PRS C said
'Taro said that Hanako will come.'

Finally, the following two examples demonstrate that *-mas-* does not occur in non-root environments, such as the complement of 'believe' and 'deny'.

(9) a. Taroo-wa [Hanako-ga kuru/*ki-**mas**-u to] sinzitei-ru.
Taro-TOP Hanako-NOM come/come-PRS $C_{NONFACT}$ believe-PRS
'Taro believes that Hanako will come.'
b. Taroo-wa [Hanako-ga kita**/***ki-**mas**-u koto] -o hitei-sita.
Taro-TOP Hanako-NOM came/come-MAS-PRS C_{FACT} -ACC deny-PST
'Taro denied that Hanako will come.'

Later in the chapter I will give a detailed analysis of the distribution of *-mas-* based on Hooper and Thompson's (1973) predicate categorization.

I propose that the reason for the differences between French and Japanese politeness marking has to do with Strong Uniformity and the variation it allows. The ϕ-feature starts out at C in both languages, and in French it is inherited by T, where it enters into agreement with the external argument, and this argument is brought up to Spec,TP. In Japanese, the ϕ-feature stays at C. Instead of "looking down" to find the external argument, it finds the representation of the addressee. Where is this representation? As I will argue, to deal with this kind of agreement at C, agreement with a discourse participant, we need to adopt Ross's performative analysis (1970), a modern version of which I will propose later in the chapter, based on Speas and Tenny (2003) and

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a revision of it by Haegeman and Hill (2011). The "speech act phrase," as linguists call the modern rendition of the performative analysis, contains representations of the speaker and the addressee, and the latter functions as the goal for the ϕ-feature at C, making it possible to provide valuation of 2nd PERSON, COLLOQUIAL/FORMAL, and as we will see below, also NUMBER and GENDER, all familiar to a standard pronominal system. To provide an argument for the politeness system of the type found in Japanese being ϕ-feature agreement at C, I turn to Basque, which offers the clearest case for this approach to politeness marking.

2.2 Allocutive Agreement

Souletin, an eastern dialect of Basque, has so-called allocutive agreement along with the familiar subject/object/indirect object agreement. The following, taken from Oyharçabal (1993), all mean 'Peter worked'.

(10) Four ways to say *Peter worked* in Souletin, an eastern dialect of Basque, depending on who you're talking to (Oyharçabal 1993)

allocutive agr. subj. agr.
↓ ↓

a. *To a male friend*
Pettek lan egin di**k.**
Peter.ERG work.ABS do.PRF AUX-3SG.ABS-2SG.COLLOQ.M -3SG.ERG
'Peter worked.'

b. *To a female friend*
Pettek lan egin di**n.**
Peter.ERG work.ABS do.PRF AUX-3SG.ABS-2\SG.COLLOQ.F -3SG.ERG
'Peter worked.'

c. *To someone higher in status (formal)*
Pettek lan egin diz**ü.**
Peter.ERG work.ABS do.PRF AUX-3SG.ABS-2.SG.FORMAL SG.ERG
'Peter worked.'

d. *Plural addressee*
Pettek lan egin du.
Peter.ERG work.ABS do.PRF AUX-3SG.ABS-3SG.ERG
'Peter worked.'

All four sentences have the same subject-verb agreement 3rd person, singular, ergative, as expected. What is unusual is that there is another agreement, the so-called allocutive agreement, that varies from sentence to sentence, and this form of agreement marks levels of politeness, very much like the politeness marker *-mas-* in Japanese.[1] In (a), the allocutive agreement is 2nd person,

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singular, colloquial, masculine, and the sentence with this agreement would be uttered to a male friend; in (b) it is 2nd person, singular, colloquial, feminine, and this sentence would be intended for a female friend; (c) is for someone higher in status than the speaker, and the allocutive agreement indicates this—2nd person, singular, formal; (d) shows that there is no plural allocutive agreement. The allocutive agreement clearly agrees with the type of hearer to whom the sentence is uttered—male friend, female friend, social superior.

The allocutive agreement is authentic agreement, as we can see by the fact that it competes with the normal 2nd person agreement morpheme. If the sentence contains a 2nd person subject, object, etc., the allocutive agreement does not arise (Oyharçabal 1993). In Basque there can only be one 2nd person agreement (also only one 1st person agreement). In the following, no allocutive agreement is allowed because there is already a 2nd person agreement that goes with the object or the subject.[2]

(11) a. (Nik **hi**) ikusi **h**aut.
(1SG.ERG **2SG.COLLOQ.ABS**) see.PRF AUX-**2SG.COLLOQ.ABS**-1SG.ERG
'I saw you.'

b. (**Zuek** ni) ikusi nai**zue**.
(**2PL.ERG** 1SG.ABS) see.PRF AUX-1SG.ABS-**2PL.ERG**
'You saw me.'

Hence, the 2nd person allocutive agreement is in direct competition with the "argument" 2nd person agreement, indicating that the allocutive agreement belongs to the regular agreement system.

Another property of Basque allocutive agreement, one that links it to the politeness marking in Japanese, is that it is limited to the main clause. In (12b), we can see that placing an allocutive agreement within a relative clause is ungrammatical, and in (13b), complements do not allow allocutive agreement.

Relative clause

(12) a. [Lo egiten duen] gizona Manex dun.
sleeping AUX.3SG.ERG.COMP man John COP.3SG.ABS.ALLOC.F
The man [who is sleeping] is John.'

b. *[Lo egiten dinan] gizona Manex
sleeping AUX.3SG.ERG.**ALLOC.F**.COMP man.the John
dun.
3SG.ABS.COP.ALLOC.F

Complementation

(13) a. Ez dinat nahi [gerta dakion].
NEG AUX.1SG.ERG.ALLOC.F want happen 3SG.ABS.AUX.3SG.DAT.COMP
'I don't want it to happen to him.'

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b. *Ez dinat nahi [gerta
NEG AUX.1SG.ERG.ALLOC.F want happen
diakionan].
3SG.ABS.AUX.3SG.DAT.**ALLOC.F**.COMP

Moreover, the allocutive agreement is not allowed in the main clause if it is a question.

(14) a. Lan egiten duia hire lagunak?
work AUX.3SG.ERG.Q your friend.ERG
'Does your friend work?
b. *Lan egiten dina hire lagunak?
work AUX.3SG.ERG.**ALLOC.F**.Q your friend.ERG

Oyharçabal (1993) makes two observations based on the distribution of allocutive agreement we just observed. First, the allocutive agreement must be borne by C. In all the environments where the allocutive agreement is not allowed, there is a lexical C, as, for example, in questions with a question morpheme.[3] This means that the allocutive agreement is in competition with material at C, which indicates that it is borne by C. It is ultimately pronounced at T, as we can see by the fact that it is pronounced internal to the sequence that also contains the ergative agreement with the subject. But its effects are clearly exhibited at C, so that the location of pronunciation is something that occurs at PF. I also assume that allocutive agreement, by virtue of agreeing with an entity that, as we will see, is represented in a superstructure above the uttered sentence, is readily interpreted as being at C.

As further demonstration of the C nature of the allocutive agreement in Basque, we saw that it does not occur in a question even if it is a main clause. However, it turns out that in another dialect, Batua Basque, allocutive agreement may occur (Zu 2015).

(15) Batua Basque
a. Lan egiten **al** di-∅-k hire lagunak.
work Q AUX-3SG.ERG-**ALLOC.M** your friend.ERG
'Does your friend work?' (said to a male friend)
b. Lan egiten **al** di-∅-n hire lagunak.
work Q AUX-3SG.ERG-**ALLOC.F** your friend.ERG
'Does your friend work?' (said to a female friend)

What is the difference between this dialect and Souletin? As Zu notes, in Batua Basque, the question particle *al* occurs away from C.

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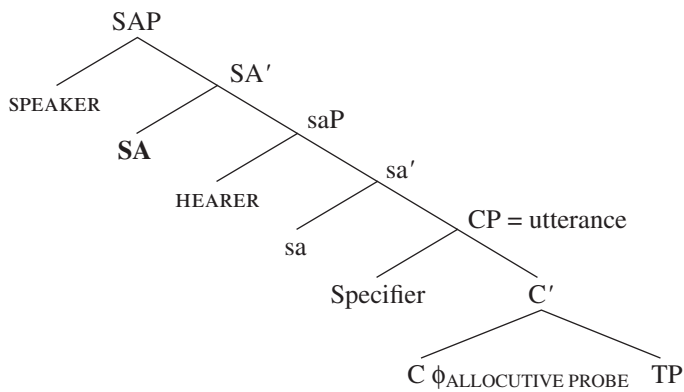
(16) a. John ikusi **al** d-u-zu? Batua Basque
John see Q 3.ABS-AUX-2SG.ERG
'Have you seen John?'
b. John ikusi d-u-zu-**ia**? Northeastern Basque (Souletin)
John see 3.ABS-AUX-2SG.ERG-Q
'Have you seen John?'

In (16a), we can see that the question particle *al* occurs mid-sentence and away from C, which occurs at the end of the sentence. On the other hand, in (16b), which is Souletin, called "Northern Basque" by Zu, the question particle, which is *ia* in this dialect, occurs right on C. This question particle blocks allocutive agreement from occurring in Souletin, but not in Batua Basque.

A second point that Oyharçabal (1993) makes is that the Souletin allocutive agreement and its property of being borne by C makes it parallel to the politeness marker in Japanese; Oyharçabal refers to Miyagawa (1987). In that article, I argued that the politeness marker is associated with C. This correlation gives credence to the idea that the politeness marker in Japanese is a 2nd person ϕ-feature agreement borne by C, as predicted by Strong Uniformity. Before giving the evidence that the politeness marker in Japanese is indeed borne by C, I will briefly remark on how the allocutive agreement gets its valuation, given that it is a formal agreement probe that requires a goal for valuation.

In order to receive proper valuation, allocutive agreement requires a 2nd person "goal" (or "target") in the structure that corresponds to the addressee. This recalls Ross's (1970) performative analysis, and I adopt a modern version of the performative analysis, proposed by Speas and Tenny (2003). The core claim of Speas and Tenny is that the performative structure is implemented by a head, which they call "speech act" or "sa." I will use a slightly revised version of the Speas and Tenny structure that was proposed by Haegeman and Hill (2011).

(17)



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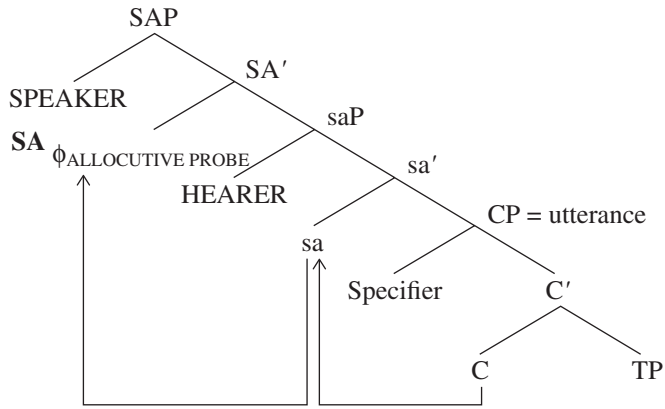
The sa head takes the actual utterance, CP, as its complement; the head of this CP, C, has the ϕ-feature that will receive valuation. The sa head takes the HEARER in its specifier, and after sa raises to the "shell" (marked by "SA"), the specifier of this shell contains the speaker.

The ϕ-feature undergoes raising to the higher SA head, possibly as a result of head raising of C. From this position, the ϕ-feature, a probe, c-commands its goal, HEARER, allowing it to be properly valued (Miyagawa 2012a). It also has the entire sentence in its scope and marks it as colloquial/formal.

(18)



In Souletin, the goal contains information about gender, number, and level of politeness along with it being 2nd person; this is similar to the pronoun system found in Romance (e.g., *tu/vous*). See Miyagawa (2012a) for other arguments that the allocutive agreement occurs at C, and that it requires the kind of "superstructure" shown above.

2.2.1 Politeness Marking in Japanese as Allocutive Agreement

What led Oyharçabal (1993) to observe that the Souletin allocutive agreement correlates with politeness marking in Japanese is the fact that the politeness marker *-mas-* (and its nominal counterpart *-des-*) is borne by C. This, plus the fact that the allocutive agreement and *-mas-* have the same politeness function, would naturally identify *-mas-* as itself being an allocutive agreement that bears 2nd person valuation. This, in turn, gives credence to the prediction of Strong Uniformity and feature inheritance—in Category I languages such as Japanese, the ϕ-feature occurs at C. I now turn to the argument that *-mas-* is borne by C.

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The core observation in Miyagawa (1987) is that there is a variation in grammaticality for *wh*-questions with and without the politeness marker.

(19) Dare-ga ki-**mas**-u **ka**? (formal)
who-NOM come-MAS-PRS Q
'Who will come?'

(20) *Dare-ga kuru **ka**? (colloquial)
who-NOM come Q
'Who will come?'

In (19), the verb contains the politeness marker *-mas-* and the *wh*-question with the question particle *ka* is fine, but in (20), the same question without the politeness marker is degraded. To ask this question, one must resort to some other form of the question without *ka*, such as rising intonation or the alternative question particle *no*.[4]

What is wrong with (20) is that the question particle *ka* is not selected.

(21) *Ka* must be selected by a head.

We can see this in the following contrast between bridge and nonbridge matrix verbs.[5]

Bridge/nonbridge verbs

(22) a. Bill-wa [$_{CP}$ dare-ga kuru **ka**] itta.
Bill-TOP who-NOM come Q said
'Bill said who will come.'

b. ?*Bill-wa [$_{CP}$ dare-ga kuru **ka**] donatta.
Bill-TOP who-NOM come Q shouted
'Bill shouted who will come.'

As shown, only bridge verbs allow *ka*, which suggests that *ka* must be selected by a head. Returning to the contrast in (19)–(20), given that *ka* must be selected, and that the occurrence of the politeness marker in (19) makes that possible, I argued that it must be the case that the politeness marker selects *ka.* In Miyagawa (1987), I suggested that *-mas-* excorporates at LF and raises to a position above *ka*.

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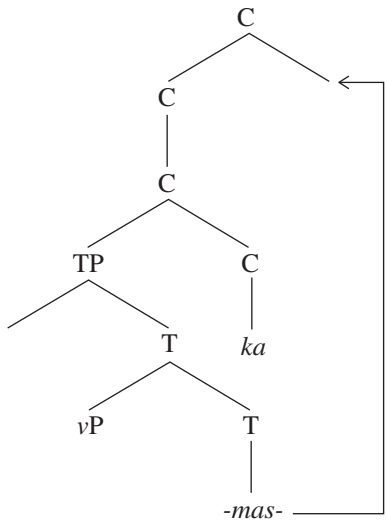
(23) *-mas-* (Miyagawa 1987)
The politeness suffix begins in the region of T, and raises to CP. This is a form of LF affix raising (cf. Pesetsky 1985, Kitagawa 1986).



Not only does this account for the grammaticality of (19), it also places the politeness marker in a position in which it has the entire sentence within its domain. This is the correct interpretation because *-mas-* marks the entire sentence as polite.

Recall that in Souletin Basque, allocutive agreement does not occur in questions because the Q particle already occurs on C; this is different from Batua Basque, which allows allocutive agreement on C because the Q particle in this dialect occurs away from C. In Japanese, the C particle *ka* occurs on C, yet the allocutive *-mas-* may occur as well. The reason is that in Japanese, multiple C heads are allowed. Thus, a sequence such as *to-ka* 'C-Q' is possible. Such a multiple-C structure is never found in Basque (Arregi, personal communication). The structure in (23) is an instantiation of the multiple-C structure in Japanese.

We can map this analysis of the allocutive agreement to the "performative analysis" using Speas and Tenny's structure, as revised by Haegeman and Hill, in (17)–(18) for allocutive agreement. In doing so, I am following the hint that Harada (1976) gave when he called *-mas-* (and its nominal counterpart *-des-*) "performative" honorifics. Instead of raising the politeness marker at LF as suggested in Miyagawa (1987), we can assume, along the lines suggested for Basque, that it originates at C as a ϕ-feature probe that raises to the sa head,

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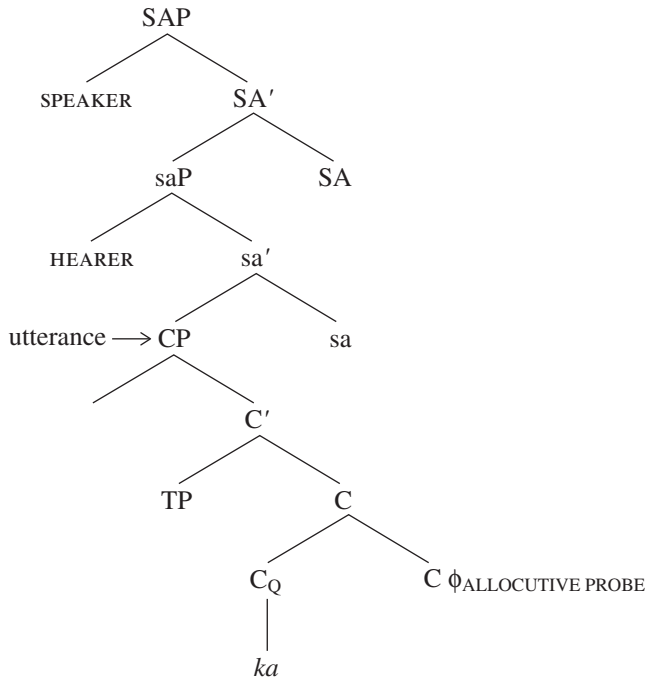
where it is given the valuation of 2nd person formal. I have made the structure head-final to reflect the Japanese word order.

(24)



In Japanese, only the formal form, *-mas-*, is associated with the ϕ-feature probe that forms an allocutive agreement, while in Souletin, both formal and colloquial styles have allocutive agreement.[6,7]

Finally, if *-mas-* is indeed a ϕ-feature probe like allocutive agreement in Souletin, it requires the "superstructure" created by the sa head, as shown above. This makes the prediction that *-mas-* cannot occur in embedded contexts where *ka* must be selected by a matrix verb. This prediction is borne out.

(25) Bill-wa [$_{CP}$ dare-ga kuru/*ki-**mas**-u **ka**] tazuneta.
Bill-TOP who-NOM come/come-MAS-PRS Q asked
'Bill asked who will come.'

We see that the indirect-question construction is ungrammatical with *-mas-*. Why is this? On our analysis, the reason is that, in order to give valuation to the allocutive agreement *-mas-*, there must occur a superstructure above the CP that contains the speech act head and all the concomitant structure that it creates (see (24)). As a result, in this example, what the matrix verb 'ask' takes is not the interrogative CP with *ka* but the superstructure with saP. The

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interrogative CP occurs inside this saP, and is inaccessible to the matrix verb because of all the structure created by sa. As a result, the selectional requirement of the matrix verb fails to be met and the sentence is ungrammatical.

2.2.2 Further Evidence for the Speech Act Projection: Jingpo and Newari

Zu (forthcoming) presents evidence beyond Basque for the existence of the speech act projection (saP). The data comes from two Tibeto-Burman languages, Jingpo, spoken in Myanmar, and Newari, spoken in Nepal.

2.2.2.1 Jingpo

Jingpo has agreement that goes with the subject and, under the right circumstance, also with the object. In addition, this language has speaker agreement that has the form of the 1st person plural agreement. This agreement, which apparently can only appear in the root clause (Zu, personal communication), is optional, and when it appears, the subject agreement may not occur. All agreements occur on a sentence-final particle.

(26) Subject vs. speaker agreement in Jingpo (Dai 2010, 5)

a. Jongma du hkum ma-s-ai.
student arrive complete PL-PERF-3:DECL
'The students have all arrived.' (subject agreement, neutral)

b. Jongma du hkum sa-**ga**-ai.
student arrive complete PERF-**1PL**-DECL
'The students have all arrived.' (speaker agreement, bonding)

(26a) has the normal subject agreement, and the sentence has neutral interpretation relative to the speaker. In (26b), the occurrence of the speaker agreement implies a close relation, or "bonding," between the speaker and the subject of the sentence. As Zu describes it, if a teacher reports to the principal about the students having arrived using (26a), it is simply a statement about the state of affairs. But if the teacher uses (26b), then along with the fact that the students have arrived, the teacher conveys the meaning that the teacher has a close relationship with the students. This expression of bonding is made possible by the agreement linking the speaker in the speech act projection to the proposition. In other languages, a similar effect is obtained by using a diminutive. Just as in Basque, the target of the speaker agreement is covert since the elements of the saP are typically unpronounced.

(27) The target of speaker agreement must be covert in Jingpo

(*Ngai) jongma du hkum sa-**ga**-ai.
I student arrive complete PERF-**1PL**-DECL
'The students have all arrived.' (speaker agreement, covert speaker)

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Zu gives two arguments that the speaker agreement in Jingpo is true agreement, just as we saw for the allocutive agreement in Basque. First, the speaker agreement has the same morphological form, *ga*, as the normal 1st person plural agreement. Following are examples of plural subject agreement showing this *ga* agreement.

(28) Subject agreement with 1st person pronouns in Jingpo (Dai and Xu 1992, 125, 162)

a. (Anhte) masum lang hti sa-**ga**-ai.
we three time read PRF-**1PL**-DECL
'We have read (it) three times.' (subject agreement, optional speaker)

b. Daina go (anhte) yong datshin sa yu mo nga **ga**-ai.
tonight TOP we all movie go see plan IMPF **1PL**-DECL
'We all plan to go see a movie tonight.' (subject agreement, optional speaker)

We might ask, why is the speaker agreement plural instead of singular? It may be to allow for an inclusive interpretation, something akin to the use of *we* in English in a sentence such as *How are we doing?* to ask how the addressee is doing.

The second argument given by Zu that the speaker agreement is part of the regular agreement system in Jingpo has to do with a phenomenon similar to what we saw in Basque. In Jingpo, there are forms for agreement that go with 1st person subject and non–1st person (indirect) object. If the object is also 1st person, there is no agreement form that targets both the 1st person subject and the 1st person object.

(29) The perfective final particles, 1st person subject (Dai and Xu 1992, 280, 287)

Subject	(Indirect) object	Singular	Plural
1	No object	*sangai*	*sagaai*
1	1	—	—
1	2	*sinde ai*	*masinde ai*
1	3	*se ai*	*mase ai*

In cases where both the subject and the object refer to the 1st person, the sentence-final particle only agrees with the subject.

(30) Ngai anhte-hpe hkyen ton ya sa-**ng**-ai.
I we-OBJ prepare APPL PERF-1SG-DECL
'I have already prepared for us.'

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As evidence that the speaker agreement is part of the regular agreement system, Zu points out that the speaker agreement and 1st person subject agreement are mutually exclusive. Below, where there is a 1st person subject, only the subject agreement may occur.

(31) Speaker agreement and 1st person subject agreement are mutually exclusive
a. Ngai du sa-**ng**-ai.
I arrive PRF-1SG-DECL
'I have arrived.'
b. *Ngai du sa-**ga**-ai.
I arrive PRF-1PL-DECL
Intended: 'I have arrived.'

2.2.2.2 Newari

Newari verb suffixes encode both tense and the so-called conjunct-disjunct distinction (Hale 1980, DeLancey 1992, Hargreaves 2005).

(32) Verbal inflection in Newari (Hargreaves 2005)

Verb suffixes	Past	Nonpast
Conjunct	*ā*	*e*
Disjunct	*a*	*i*

These are illustrated below.

(33) a. wõ: [wa ana wan-**ã** dhakã:] dhãla.
(s)he.ERG (s)he there go-PST.CONJ that said
'(S)he$_i$ said that (s)he$_{i/*j}$ went there.' (coindexation)
b. wõ: [wa ana wan-**a** dhakã:] dhãla.
(s)he.ERG (s)he there go-PST.DISJ that said
'(S)he$_i$ said that (s)he$_{*i/j}$ went there.' (disjoint reference)

In (33a), the subordinate verb is inflected for conjunct, which indicates coreference between the subordinate subject and the matrix subject. The occurrence of the disjunct inflection in (33b) indicates disjunction between the two subjects.

Evidence for saP comes from observing the verbal inflection in matrix clauses.

(34) Main declarative clauses in Newari
a. ji ana wan-**ã**/wan-**e**.
I there go-PST.CONJ/go-FUT.CONJ
'I went/will go there.' (Decl.: subject = speaker … conjunct)

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b. cha ana wan-**a**/wan-**i**.
you there go-PST.DISJ/go-FUT.DISJ
'You went/will go there.' (Decl.: subject = addressee … disjunct)
c. wa ana wan-**a**/wan-**i**.
(s)he there go-PST.DISJ/go-FUT.DISJ
'(S)he went/will go there.' (Decl.: subject = 3rd … disjunct)

In (34a), the matrix subject is 1st person, and the verbal inflection encodes conjunct, which indicates the existence of a 1st person item higher in the structure. This would be the SPEAKER in the saP. In (34b,c), the subjects are 2nd person and 3rd person respectively, and as expected, the verb carries the disjunct inflection.

While the conjunct/disjunct inflection provides a clear argument for the existence of the saP, there is one interesting wrinkle in the pattern of agreement. As Zu notes, when the matrix clause is a question, we get the opposite agreement pattern.

(35) Main interrogative clauses in Newari
a. ji ana wan-**a**/wan-**i** lã?
I there go-PST.DISJ/go-FUT.DISJ Q
'Did/will I go there? (I don't remember.)'
(Interr.: subject = speaker … disjunct)
b. cha ana wan-**ã**/wan-**e** la?
you there go-PST.CONJ/go-FUT.CONJ Q
'Did/will you go there?' (Interr.: subject = addressee … conjunct)
c. wa ana wan-**a**/wan-**i** lã?
(s)he there go-PST.DISJ/go-FUT.DISJ Q
'Did/will (s)he go there?' (Interr.: subject = 3rd … disjunct)

In these yes-no questions, when the subject is 1st person as in (35a), the disjunct inflection shows up, while in (35b), in which the subject is 2nd person, the conjunct inflection appears. (35c), with a 3rd person subject, has the disjunct inflection. Zu suggests that this phenomenon is an indication of an additional projection within saP, which Speas and Tenny (2003) call the "seat of knowledge," in the "sentience" layer of the structure. This projection indicates who holds the knowledge contained in the sentence. It is the speaker in the case of a declarative, and the hearer in the case of an interrogative.

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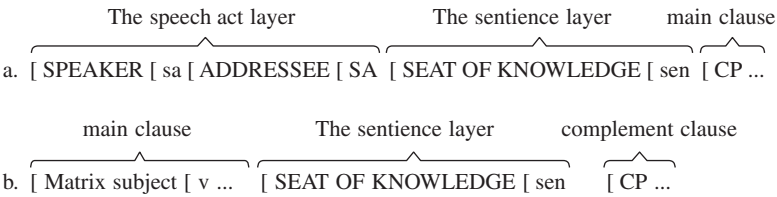
(36) The sentience layer (Speas and Tenny 2003)


The speech act layer
The sentience layer
main clause
a. [SPEAKER [sa [ADDRESSEE [SA [SEAT OF KNOWLEDGE [sen [CP ...
main clause
The sentience layer
complement clause
b. [Matrix subject [v ... [SEAT OF KNOWLEDGE [sen [CP ...

In the matrix clause, the sentience layer occurs right above the main clause, while in the embedded structure, the same layer may occur as part of the subordinate structure. Zu suggests that the pattern of agreement we see in Newari is an indication that the conjunct/disjunct agreement is sensitive to what the seat of knowledge is coindexed with: the speaker in the indicative and the hearer in the interrogative.

(37) Declarative and interrogative sentences and the seat of knowledge

a. Declarative: SPEAKER$_i$ … ADDRESSEE … SEAT OF KNOWLEDGE$_i$ … Subject$_i$ …V$_{CONJ}$
b. Interrogative: SPEAKER … ADDRESSEE$_i$ … SEAT OF KNOWLEDGE$_i$ … Subject$_i$ …V$_{CONJ}$

2.3 Two Counterexamples

Returning to the analysis of the question particle *ka* in *wh*-questions in Japanese, Yokoyama (2013) presents two counterexamples to the generalization that a *wh*-question in the colloquial style cannot have *ka*, as we saw earlier and repeated below.

(38) Dare-ga ki-**mas**-u **ka**? (formal)
who-NOM come-MAS-PRS Q
'Who will come?'

(39) *Dare-ga kuru **ka**? (colloquial)
who-NOM come Q
'Who will come?'

Yokoyama notes that the following are fine.

(40) Dare-ga kuru ka naa?
who-NOM come Q PRT
'I wonder who will come.'

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(41) Dare-ga kuru ka!
who-NOM come Q
'No one will come!'

In (40), the particle *naa* makes the sentence into a conjectural question. (41) is a rhetorical question that asserts a statement although the sentence is interrogative in form. Yokoyama proposes that the Q particle in these examples has a function that is fundamentally different from a standard question marker because, according to him, in both of the examples above, *ka* makes an assertion as opposed to marking a standard, information-seeking question. Yokoyama suggests that the condition that *ka* must be selected (Miyagawa 1987) only applies to the non-assertive *ka*.

Contrary to Yokoyama's claim, the conjectural question seems to be more of a question than an assertion. We can easily account for the grammatical nature of the conjectural question by presuming that the particle *naa* is a head that licenses *ka* without the need for the politeness marker. In this way, *naa* is functioning like a matrix verb such as *sitteiru* 'know' that selects the *ka* head. The more interesting case is the rhetorical question. No doubt Yokoyama is correct that the rhetorical question has a function of assertion and *ka* here is part of the construction that marks such assertion. Very clearly, the rhetorical *ka* has a function different from the standard question particle *ka.* Let us look at its properties.

Note that the rhetorical question has a negative connotation (no one will come) despite the fact that there is no overt negation in the sentence. Oguro (2015) accounts for this negative connotation by proposing that the rhetorical *ka* contains a negative feature. Striking support for this comes from the fact that *ka* licenses negative polarity items (NPIs).

(42) Daremo kuru ka!
anyone come Q
'No one will come!'

This example is particularly noteworthy because in Japanese NPIs must be licensed by an explicit negative element; they cannot be licensed in other downward entailing environments as in English. The fact that the NPI is licensed in (42) strongly supports Oguro's contention that the rhetorical *ka* itself contains negation.[8]

Along with the negative connotation, the rhetorical question also strongly asserts the speaker's conviction about the event or the situation. Oguro suggests that this emotional conviction comes from the modal *mono* (Goto 2012), which is sometimes used in exclamatory sentences. This *mono* can be silent, but it is always there to mark the exclamation.

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(43) Taroo-mo tosi-o totta mono da!
Taro-also age-ACC took MOD COP
'Taro has aged!'

As Oguro notes, because of this conviction on the part of the speaker, an adverb such as *zettaini* 'definitely' is compatible with the rhetorical question, but an adverb that indicates the speaker's uncertainty, such as *hyottositara* 'maybe', is incompatible.

(44) a. Zettaini daremo kuru (mono) ka!
definitely anyone come MOD Q
'Definitely no one will come!'
b. ??Hyottositara daremo kuru (mono) ka!
maybe anyone come MOD Q
'Maybe no one will come!'

Oguro suggests that *mono*, which contributes the exclamatory meaning, has the POV feature (Chou 2012), which is valued by the discourse role of SPEAKER as represented in the speech act structure.

(45) [saP SPEAKER [$_{CP}$ [$_{MOD}$ [$_{TP}$ daremo ku-ru] mono$_{POV/SPEAKER}$] ka$_{+NEGATIVE}$] sa^{0}]

While *mono*, overt or covert, is licensed by the SPEAKER in the speech act projection, I argued that *-mas-* is licensed by the HEARER. These are not mutually incompatible, as we see in the example below that contains both.

(46) Dare-ga ki-mas-u ka!
who-NOM come-MAS-PRS Q
'No one will come!'

Both the standard question particle and the rhetorical *ka* occur within the saP. The standard question particle needs the politeness marking to project the saP, which in turn furnishes the sa head to license *ka*. In the case of the rhetorical question, the modal for exclamation, *mono*, which may be covert, projects the saP, making it unnecessary for the rhetorical question *ka* to have the politeness marking.

2.4 Root Phenomena

In this section, I will look carefully at the distribution of the allocutive agreement *-mas-*. We saw that the allocutive agreement in Souletin is limited to non-interrogative main clauses. The politeness marker *-mas-* in Japanese has a wider distribution, although still within a narrow range of possibilities. The rhetorical *ka* that we just looked at essentially shares the same distribution.

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Given that both must be licensed by the occurrence of the speech act projection, the distribution of *-mas-* is an indication of where the speech act projection may occur. As I have noted in an earlier work (Miyagawa 2012a), the speech act projection may appear precisely in those environments that Emonds (1969) originally defined as roots. Below, I will extend my earlier work to include one domain for the root that Emonds did not identify.

Emonds (1969) noted that while structure-preserving transformations may apply virtually in any type of clause, those that he identified as non-structure-preserving transformations are limited to the root clause, which he defined as follows.

(47) Root
A root will mean either the highest S in a tree, an S immediately dominated by the highest S, or the reported S in direct discourse. (Emonds 1969, 6)

In these contexts, a non-structure-preserving transformation such as Negative Constituent Preposing (NCP) may apply, but not in a non-root clause, which requires all transformations to be structure-preserving (see also Emonds 1976, 2004, 2012).

(48) a. Never had I had to borrow money.
b. Because never had I had to borrow money, I have a lot saved.
c. John said that never had he had to borrow money.
d. *The fact that never had he had to borrow money is well-known.

The first example is the highest S; the second example with *because* is S immediately dominated by the highest S; and the third example is S in direct discourse. The final example does not fit any of the environments for roots, hence a root transformation cannot apply.

Contrary to Emonds, Hooper and Thompson (1973) argue that there is no need to distinguish between the two types of domains, root and non-root; they show that much of what Emonds noted follows from semantic/pragmatic factors. Hooper and Thompson (1973) point out that root transformations apply in a wider variety of clauses than what Emonds called root clauses. The following shows that NCP may apply in the subordinate clause of *find out*, an environment that does not fit any of Emonds's environments for roots.

(49) I found out that never before had he had to borrow money. (Hooper and Thompson 1973, 119)

Hooper and Thompson propose an alternative based on the observation that the root transformations that Emonds identified all involve some sort of emphasis.

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(50) Root transformations (Emonds 1969)
NCP, VP preposing, topicalization, prepositional phrase substitution, subject replacement, direct quote preposing, etc.

For example, NCP is a transformation that places special emphasis on the negative portion of an asserted clause (*Never have I had to …*), and direct quote preposing moves the quoted material to the left edge in order to highlight it, the same as topicalization. Based on this observation, Hooper and Thompson propose that the so-called root transformations embody this meaning of emphasis, and because emphasis occurs naturally in asserted environments, "[r]oot transformations are restricted to application in asserted clauses" (Hooper and Thompson 1973, 472). Root transformations are incompatible with presupposed clauses, and this is why (48d) above, a complex NP headed by *fact*, does not allow root transformations: the complement of *fact* is naturally presupposed, not asserted.[9]

To demonstrate their point that it is the notion of assertion that is operative in allowing root transformations, Hooper and Thompson test for root transformations in five environments, A–E below.

(51) Hooper and Thompson (1973, 473–474)

Nonfactive:			Factive	
A	B	C	D	E
say	suppose	be (un)likely	resent	realize
report	believe	be (im)possible	regret	learn
exclaim	think	deny	be surprised	know
etc.	etc.	etc.	etc.	etc.

According to Hooper and Thompson, for Class A, it is possible for the complement to comprise the main assertion. For Class B, the main verb does not always have the meaning of assertion, allowing the complement to express the main assertion of the sentence. Class C verbs have the meaning of assertion, and their complement is neither asserted nor presupposed. Class D verbs likewise express assertion, and their complement is presupposed. Finally, Class E verbs are called "semi-factive" and their complement is not always presupposed. Hooper and Thompson show that root transformations are possible in the complement clause for those classes where the complement can express assertion, namely A, B, and E.

(52) I exclaimed that never in my life had I seen such a crowd.
(A) (Hooper and Thompson 1973 (43))

(53) I think that this book, he read thoroughly. (B)

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(54) I found out that never before had he had to borrow money.
(E) (Hooper and Thompson 1973 (119))

C and D do not allow root transformations in the complement clause.

(55) *It's likely that seldom did he drive that car. (C) (H&T (96))

(56) *He was surprised that never in my life had I seen a hippopotamus.
(D) (H&T (103))

In Miyagawa (2012a), I argued that while Hooper and Thompson are essentially correct in their critique of Emonds's work, it turns out that there is a completely different set of data that provides support for Emonds's original conception of the root. This data involves the speech act projection, and in particular, the politeness marker *-mas-* that the speech act projection makes possible. As we can see below, the distribution of the politeness marker *-mas-* fits exactly Emonds's characterization of the root. Much of this has already been noted by Harada (1976), though he does not relate *-mas-* to Emonds's root phenomena.

(57) a. Highest S
Hanako-wa ki-mas-u.
Hanako-TOP come-MAS-PRS
'Hanako will come.'
b. S dominated by highest S
Hanako-ga ki-mas-u kara, ie-ni ite-kudasai.
Hanako-NOM come-MAS-PRS because home-at be-please
'Because Hanako will come, please be at home.'
c. Reported S in direct discourse
Taroo-wa Hanako-ga ki-mas-u to itta.
Taro-TOP Hanako-NOM come-MAS-PRS C said
'Taro said that Hanako will come.'

No other environment tolerates *-mas-*, save one, which I will take up later. Before I present the data, one thing we must note about Japanese is that asserted and presupposed clauses are often, though by no means always, distinguished by the type of complementizer that heads the clause.

(58) Complementizers in Japanese (see for example Kuno 1973, McCawley 1978)
to: nonfactive (= not presupposed)

koto/no: factive (= presupposed)

When we compare complementizer selection in Japanese with the five categories in Hooper and Thompson's classification, we find that the five verb classes

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in Hooper and Thompson cluster precisely into two groups with respect to complementizer selection: those that allow root transformations and those that do not. As shown below, while A, B, and E, which allow root transformations, may take *to* or *koto*, C and D are limited to *koto*.

(59) A: *to*, *koto* D: *koto*
B: *to, koto* E: *to, koto*
C: *koto*

What we see is that those verb classes whose complements allow root transformations (A, B, E) may take the nonfactive *to*, while those that do not can only take *koto* (C, D). The fact that A, B, and E can also take *koto* simply shows that any verb has the option of taking a presupposed complement with the right construction, as we can see in English with Class A verbs (*I reported on the fact that Mary will miss the meeting*).

The following, taken from Miyagawa (2012a), are based on Hooper and Thompson's classification of verbs. Only Class A, which contains verbs whose subordinate clause is equivalent to direct discourse, allows *-mas-*. Harada (1976) already noted that *-mas-* may occur in subordinate clauses but that its distribution is highly limited, essentially noting what we see below.

(60) Class A (see Harada 1976)
Taroo-wa Hanako-ga kuru/ki-mas-u to syutyoosita.
Taro-TOP Hanako-NOM come/come-MAS-PRS $C_{NONFACT}$ exclaimed
'Taro exclaimed that Hanako will come.

(61) Class B
Taroo-wa [Hanako-ga kuru/*ki-*mas*-u to] sinzitei-ru.
Taro-TOP Hanako-NOM come/come-PRS $C_{NONFACT}$ believe-PRS
'Taro believes that Hanako will come.'

(62) Class C
Taroo-wa [Hanako-ga kita/*ki-*mas*-u koto]-o hitei-sita.
Taro-TOP Hanako-NOM came/come-MAS-PRS C_{FACT}-ACC deny-PST
'Taro denied that Hanako will come.'

(63) Class D
Taroo-wa [Hanako-ga kita/*ki-*mas*-i-ta koto]-ni odoroi-ta.
Taro-TOP Hanako-NOM came/come-MAS-PST C_{FACT}-DAT surprise-PST
'Taro was surprised that Hanako came.'

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(64) Class E
Taroo-wa [sono hikooki-ga tuirakusita/*tuirakusi-mas-i-ta koto]-o
Taro-TOP that plane-NOM fall/fall-MAS-PST C_{FACT}-ACC
sira-nakat-ta.
know-NEG-PST
'Taro didn't know that the airplane crashed.' (adapted from Harada's (104b))

We saw above that only Class A subordinate clauses allow *-mas-*. Another of Emonds's environments for roots is S directly dominated by another S, and we saw earlier, in (48b) and (57b), that the 'because' clause is an instance of this root environment. As Harada (1976) has already noted, *-mas-* is possible in this environment (his example is with *-des-*, which is the nominal counterpart to *-mas-*. I add a second example with *-mas-*).

(65) [Hima **des-i-ta** kara] Ginza-ni iki-mas-i-ta.
free DES-PST because Ginza-to go-MAS-PST
'I went to Ginza because I had nothing to do.' (Harada's (137d))

(66) [Hanako-ga ki-**mas**-u kara], uti-ni ite-kudasai.
Hanako-NOM come-MAS-PRS because home-at be-please
'Because Hanako will come, please be at home.'

Emonds's original conception of the root was effectively countered by Hooper and Thompson (1973), who showed that root transformations apply in environments that can be interpreted as an assertion, and asserted environments are possible in a wider variety of constructions than what Emonds envisioned.[10] However, what we just observed is that the allocutive agreement *-mas-* fits precisely Emonds's original conception. This is an indication that what Emonds proposed in 1969 is a statement about the distribution of the speech act projection. Taken as such, Emonds's original conception is verified as capturing an important generalization.

As Oguro (2015) points out, the rhetorical *ka* that we looked at earlier is also limited to roots. It cannot be embedded except as a quote in direct discourse.

(67) Taroo-wa dare-ga kuru (mono) ka to itta.
Taro-TOP who-NOM come MOD Q C said
'Taro said no one will come!'

(68) *Boku-wa [$_{saP}$ daremo ku-ru mono ka to] sinzite-iru.
I-TOP anyone come-PRS MOD Q C believe
'I believe that no one will come.'

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Just as with the politeness marker *-mas-*, the rhetorical *mono-ka* depends on the speech act projection, hence it is limited to occurring in root environments. The one exception is that the rhetorical question does not occur in the 'because' clause.

(69) *Daremo kuru mono ka da kara tumaranai.
anyone come MOD Q COP because boring
'Because no one will come, it will be boring.'

I presume that this is due to a constraint on the grammar: the Q particle *ka* and *kara* 'because' occur at C, and they cannot both appear at the same time. The same is observed with the complementizer *to*.

(70) *Hanako-ga kuru to kara, ansinsita.
Hanako-NOM come C because relieved
'I was relieved because-that Hanako will come.'

2.4.1 Attitudinal and Style Adverbs in English

Is there anything in English that parallels what we observed for the allocutive agreement in Japanese and Basque? There is one phenomenon in English observed by Amano (1999) that precisely matches the allocutive agreement in apparently only being able to occur in Emonds's original root environments (and the reason clause). Following Greenbaum (1969) and Quirk et al. (1972, 1985), Amano distinguishes between "attitudinal" and "style" adverbs.[11]

(71) Attitudinal
apparently, certainly, definitely, evidently, annoyingly, astonishingly …
Style
frankly, truthfully, honestly, …

According to Greenbaum (1969), attitudinal adverbs indicate the speaker's attitude toward the proposition; in some cases this attitude is about the truth value of the proposition (e.g., *apparently*), while in other cases some other attitude is expressed (e.g., *annoyingly*). Amano's proposal is that attitudinal adverbs indicate assertions, and, quite strikingly, Amano observes that the attitudinal adverbs occur in all the environments that Hooper and Thompson identified as allowing root transformations.

Attitudinal (Amano 1999, 206)

(72) a. Carl told me that this book *certainly* has the recipes in it. (Class A)
b. Bill believes that *certainly*, John will lose the election. (Class B)
c. *I doubt Kissinger *certainly* is negotiating for peace. (Class C)

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d. *I regret that I *unfortunately* attended the concert. (Class D)
e. I know that Santa *certainly* has lost a lot of weight. (Class E)
f. Sam is going out for dinner, because his wife *certainly* is cooking Japanese food. (reason clause)

According to Greenbaum (1969), style adverbs indicate the speaker's manner of expression (e.g., *frankly*), and Amano proposes that this type of adverb need not modify an assertion. Importantly, its occurrence is limited to Emonds's original characterization, plus the reason clause. First, style adverbs are compatible with all types of main clauses (Amano 1999, 210).

(73) a. *Frankly*, did you like the article? (question)
b. *Truthfully*, who broke the window? (question)
c. *Honestly*, don't tell him about it. (order)

However, style adverbs in embedded contexts are only compatible with Class A verbs.

(74) She said, "Honestly, I do not know anything about their plans." (Class A)

Amano goes on to point out that the style adverb is only compatible with Emonds's original characterization of root clauses. He notes this for indirect questions and indirect requests, given in (a) and (b) below; the rest I have created using his examples from earlier, replacing the attitudinal adverb with a style adverb (see also Jackendoff 1972 and Cinque 1999, 2004).

(75) a. *She asked me whether *honestly* I would stay. (indir. question)
b. *He requested that, *frankly*, the papers be turned in next Monday. (indir. request)
c. *Bill believes that *honestly*, John will lose the election. (Class B)
d. *I doubt Kissinger *frankly* is negotiating for peace. (Class C)
e. *I regret that I *frankly* attended the concert. (Class D)
f. * I know that Santa *honestly* has lost a lot of weight. (Class E)

Finally, Amano notes that style adverbs are compatible with reason clauses ("?" is based on native speakers he consulted).

(76) ?John fired his secretary, because, *frankly*, she was incompetent. (reason)

Very clearly, Amano discovered for English a way to distinguish speech act structures from non–speech act structures that allow root transformations. Why should style adverbs require the speech act structure? In a semantic analysis of adverbs, Bellert (1977, 349), who calls the style adverbs "pragmatic

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adverbs," notes that these adverbs "are the only ones that are strictly speaking speaker-oriented adverbs, for one of the arguments is the speaker." If this is correct, then the semantic requirement of the speaker would be expressed explicitly in the speech act projection.

2.4.2 The Relative Clause: Another Root

As we have seen, Harada (1976) identified the distribution of *-mas-* that fits Emonds's original conception of the root. Along with the three environments, Harada notes the following example (I changed the English translation slightly to reflect the fact that this is a relative clause).

(77) Watasi-wa mizu-tama-moyoo-no ari-**mas**-u kami-ga
I-TOP polka dots exist-MAS-PRS paper-NOM
hosi-i to omoi-mas-u.
want C think-MAS-PRS
'I want the paper that has polka dots.'

The relative clause thus appears to be another environment that qualifies as a root.

Hooper and Thompson had noticed that certain relative clauses allow root transformations. Keeping to their assumption that asserted clauses are what allow root transformations, they suggest that non-restrictive relative clauses and restrictive relative clauses with an indefinite head can be asserted. The difference between restrictive and non-restrictive relative clauses with definite head is illustrated below from their work.

(78) *The car that only rarely did I drive is in excellent condition.

(79) This car, which only rarely did I drive, is in excellent condition.

If we look again at Harada's example in (77) above, it is semantically a restrictive relative clause, and as indicated by the translation given, 'the paper that has polka dots', the head can be definite, although it can just as well be interpreted as indefinite. In other words, the occurrence of *-mas-* inside the relative clause appears to be independent of the requirement of "assertion" that Hooper and Thompson found for such transformations as topicalization and NCP. This is what we predict based on the idea that the allocutive agreement is licensed by SA, not assertion.

As it turns out, stylistic adverbs in English, which can otherwise only occur in the original environments noted by Emonds, as we saw above, may also occur in a relative clause.

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(80) a. I hired a student who, frankly, no one else would hire.
b. I'm reviewing a manuscript for a journal that, honestly, should not have been submitted in the first place.

If we consider the original environments that Emonds noted, repeated below, there is a simple way in which the relative clause can comprise a natural member of this set.

(81) Root
A root will mean either the highest S in a tree, an S immediately dominated by the highest S, or the reported S in direct discourse. (Emonds 1969, 6)

What all of these have in common is that they are all unselected. A 'because' clause is not selected by a head, nor is a direct quote. A relative clause, with its modification function, is by nature an adjunct, thus unselected. We thus have the following definition for the root.

(82) An unselected clause constitutes a root.

This simple definition has intuitive appeal: after all, the simplest example of the root is the main clause, which by nature is unselected. What we have seen is that there are other environments, similar to a main clause, where a clause is not selected, hence it functions as a root. As roots, these environments allow the speech act projection to occur, which licenses such phenomena as allocutive agreement and certain types of adverbs. Below, I will give further evidence that the occurrence of allocutive agreement in relative clauses is independent of Hooper and Thompson's conception of Main Clause Phenomena (MCP). But first, we need to look closely at the distribution of various types of topicalization in different languages.

2.5 Types of Topicalization

Recall that the following are some languages predicted by Strong Uniformity.

(83) Some predicted languages
Category I: C_{ϕ}, T_{δ} – Japanese
Category II: C_{δ}, T_{ϕ} – Chinese, English
Category III: C, $T_{\phi/\delta}$ – Spanish
Category IV: $C_{\phi/\delta}$, T – Dinka

So far, we have focused on the occurrence of ϕ-feature agreement, particularly at C. Let us turn to the distribution of the δ-feature. We will look particularly

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at topicalization in various constructions, including the relative clause, where we will see a separation between topicalization and the root phenomenon of allocutive agreement, thus showing that the ability of allocutive agreement to occur in relative clauses is independent of considerations of assertion as Hooper and Thompson suggest.

Before we go any further, it would be helpful to clarify terminology. Emonds (1969) proposed his definition of roots by presenting numerous operations that he identified as only occurring in the root domain: the so-called root transformations. Hooper and Thompson pointed out that the distribution of those root transformations is not defined by Emonds's original conception of the root, but instead, these operations occur whenever a clause has an assertive meaning. Hooper and Thompson demonstrate that such asserted contexts that allow root transformations are not limited to the environments Emonds specified as roots. What we have seen is that while Hooper and Thompson are correct about the root transformations occurring in clauses with asserted meaning, there is an entirely different set of data—the allocutive agreement in Japanese and stylistic adverbs in English (and presumably elsewhere)—with a root distribution as originally defined by Emonds. I will use "root" for the domains Emonds originally defined, so that allocutive agreement and the stylistic adverb in English are root phenomena. For the operations that are dependent on clauses with asserted meaning, I will introduce the term assertion-dependent phenomena. The key point is that root phenomena and assertion-dependent phenomena are distinct and one is not dependent on the other in any way.

Recent work on topicalization has shown that it isn't a uniform phenomenon, but rather, there are three types of topicalization (Frascarelli and Hinterhölzl 2007, 87–88).

(84) Three types of topics

(a) Aboutness topic: "what the sentence is about" (Reinhart 1981, Lambrecht 1994); in particular a constituent that is "newly introduced, newly changed or newly returned to" (Givón 1983, 8), a constituent which is proposed as "a matter of standing and current interest or concern" (Strawson 1964);

(b) Contrastive topic: an element that induces alternatives which have no impact on the focus value and creates oppositional pairs with respect to other topics (Kuno 1976, Büring 1999);

(c) Familiar topic: a given or accessible (cf. Chafe 1987) constituent, which is typically destressed and realized in a pronominal form (Pesetsky 1987); when a familiar topic is textually given and D-linked with a pre-established aboutness topic, it is defined as a continuing topic (cf. Givón 1983).

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These three types of topics are not so easily discernible in languages such as English, but in Japanese, these three topics are marked distinctly, so they are easy to distinguish. Aboutness topics are marked with destressed *-wa*, while Contrastive topics are marked with stressed *-wa* (Kuno 1973). Familiar topics are scrambled to the head of the sentence.

(85) a. Aboutness topic
Akai kuruma-wa Taroo-ga aratta.
red car-TOP Taro-NOM washed
'As for the red car, Taro washed it.'
b. Contrastive topic
Akai kuruma-WA Taroo-ga aratta.
red car-CONTR.TOP Taro-NOM washed
'The red car, Taro washed' (but the blue car, Hanako washed).
c. Familiar topic
Akai kuruma-o Taroo-ga aratta.
red car-ACC Taro-NOM washed
'The red car, Taro washed.'

How does this typology of topics relate to the typology of languages under Strong Uniformity? For Category I (Japanese), if we ignored this typology of topics, we would say that the δ-feature of topic lowers to T. But that would be only partially right. Bianchi and Frascarelli (2010, 82) propose that Aboutness topics are a root phenomenon, or what we are calling an assertion-dependent phenomenon. Jiménez-Fernández and Miyagawa (2014) extend this proposal with the following statement, which I have revised in view of the new root/assertion-based terminology.

(86) Distribution of topics
(i) Aboutness topics must occur in the C region;
(ii) The position of Contrastive topics and Familiar topics depends on the type of language.

What this says is that Aboutness (A) topics are not subject to typological variation under Strong Uniformity; they always occur in what Hooper and Thompson call root contexts; for us this means that A-topics universally occur in the C region. The typological variation due to inheritance of the δ-feature relates only to Contrastive (C) and Familiar (F) topics. Let us see the distribution of topics in the Category I and II languages; we begin with II (English).

Recall that the environments that Hooper and Thompson identified as allowing assertion-based phenomena are Class A, B, and E predicates, repeated below.

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(87) Hooper and Thompson (1973, 473–474)

Nonfactive:			Factive	
A	B	C	D	E
say	suppose	be (un)likely	resent	realize
report	believe	be (im)possible	regret	learn
exclaim	think	deny	be surprised	know
etc.	etc.	etc.	etc.	etc.

For a Category II language (English), in which the δ-feature stays at C, we predict that topicalization, regardless of its type, cannot occur in subordinate clauses of C and D predicates. This is shown below (Jiménez-Fernández and Miyagawa 2014).[12] We can see that while Class A, B, and E predicates allow all forms of topicalization, Classes C and D do not allow any topicalization. The (a) examples are A- or F-topics, while the (b) examples are C-topics.

Class A:

(88) a. Mary said that those books, she will read today.
b. Mary said that those books, she will read, but not these.

Class B:

(89) a. Mary believes that those books, she could read today.
b. Mary believes that those books, she could read, but not these.

Class E:

(90) a. Mary realized that those books, she could read today.
b. Mary realized that those books, she could read, but not these.

Class C:

(91) a. ?*Mary denied that those books, she will read today.
b. *Mary denied that those books, she will read, but not these.

(92) a. *It is impossible that those books, John will read by the end of the week.
b. *It is impossible that those books, John read, but not these.

Class D:

(93) a. *Mary resents that those books, John read while on vacation.
b. *Mary resents that those books, John read, but not these.

(94) a. ?*I regret that those books, John read without consulting me.
b. *I regret that those books, John read, but not these.

While all topics are consistently good or bad for each class in English as we just saw, in Japanese the situation is different because the δ-feature of topic

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may lower to T, but this is limited to C- and F-topics. In the examples below, (a) is an A-topic; (b) is a C-topic; and (c) is an F-topic.

Class A:

(95) a. Hanako-wa [sono hon-wa kodomo-ga yonda to] itta.
Hanako-TOP that book-TOP child-NOM read C said
'Hanako said that as for that book, her child read it.'
b. Hanako-wa [sono hon-WA kodomo-ga yonda to] itta.
Hanako-TOP that book-CONTR.TOP child-NOM read C said
'Hanako said that that book, her child read (but not this book).'
c. Hanako-wa [kanozyo-o Taroo-ga suki da to] kizuita.
Hanako-TOP she-ACC Taro-NOM like COP C realized
'Hanako realized that as for her, Taro likes.'

Class B:

(96) a. Hanako-wa [sono hon-wa kodomo-ga yonda to] sinziteiru.
Hanako-TOP that book-TOP child-NOM read C believe
'Hanako believes that as for that book, her child read it.'
b. Hanako-wa [sono hon-WA kodomo-ga yonda to] sinziteiru.
Hanako-TOP that book-CONTR.TOP child-NOM read C believe
'Hanako believes that that book, her child read (but not this book).'
c. Hanako-wa [sono hon-o kodomo-ga yonda to] sinziteiru.
Hanako-TOP that book-ACC child-NOM read C believe
'Hanako believes that as for that book, her child read it.'

Class E:

(97) a. Hanako-wa [Taroo-wa kanozyo-ga suki da to] kizuita.
Hanako-TOP Taro-TOP she-NOM like COP C realized
'Hanako realized that as for Taro, he likes her.'
b. Hanako-wa [Taroo-WA kanozyo-ga suki da to] kizuita.
Hanako-TOP Taro-CONTR.TOP she-NOM like COP C realized
'Hanako realized that Taro likes her (but Jiro doesn't).'
c. Hanako-wa [Taroo-ga kanozyo-ga suki da to] kizuita.
Hanako-TOP Taro-NOM she-NOM like COP C realized
'Hanako realized that Taro likes her.'

Class C:

(98) a. *Hanako-wa [sono hon-wa kodomo-ga yonda koto] -o
Hanako-TOP that book-TOP child-NOM read C -ACC
hiteisita.
denied
'Hanako denied that as for that book, her child read it.'

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b. Hanako-wa [sono hon-WA kodomo-ga yonda koto] -o
Hanako-TOP that book-CONTR.TOP child-NOM read C -ACC
hiteisita.
denied
'Hanako denied that that book, her child read (but not this book).'

c. Hanako-wa [sono hon-o kodomo-ga yonda koto] -o hiteisita.
Hanako-TOP that book-ACC child-NOM read C -ACC denied
'Hanako denied that that book, her child read.'

Class D:

(99) a. *Hanako-wa [sono hon-wa kodomo-ga yonda koto] -o
Hanako-TOP that book-TOP child-NOM read C -ACC
kookaisita.
regretted
'Hanako regretted that as for that book, her child read it.'

b. Hanako-wa [sono hon-WA kodomo-ga yonda koto] -o
Hanako-TOP that book-CONTR.TOP child-NOM read C -ACC
kookaisita.
regretted
'Hanako regretted that that book, her child read (but not this book).'

c. Hanako-wa [sono hon-o kodomo-ga yonda koto] -o
Hanako-TOP that book-ACC child-NOM read C -ACC
kookaisita.
regretted
'Hanako regretted that that book, her child read.'

As we saw above, in English all three types of topicalization are assertion-dependent phenomena, being limited to the "assertion" environments of the subordinate clauses of A, B, and E predicates. In Japanese, only the A-topic marked by *wa* has this distribution, while C- and F-topics freely occur in all environments A–E. Clearly, Hooper and Thompson's semantic/pragmatic approach is insufficient for capturing the distinction between the two languages, since the semantic/pragmatic environments are presumably uniform across both languages. To capture the differences we just observed, Jiménez-Fernández and Miyagawa (2014) turn to a proposal by Haegeman (2006, 2010), who offers a syntactic version of H&T's observation. Looking at the syntactic constructions that Hooper and Thompson noted as prohibiting assertion-dependent operations, Haegeman notes that there is a separate operator movement that these constructions contain, and this separate operation is blocking the assertion-dependent operation from occurring. An illustration of

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this comes from temporal adverbial clauses, which Hooper and Thompson point out as an environment that does not allow an assertion-dependent operation such as topicalization.

(100) *When her regular column she began to write again, I thought she would be OK.

Haegeman (2010) argues that the impossibility of the assertion-dependent operation within temporal adjuncts is not due to the fact that this clause is non-assertive, as Hooper and Thompson suggest. Rather, there is a separate operation of *wh*-movement of the temporal *wh*-phrase, and this movement intervenes to block such operations as topicalization. Evidence for the *wh*-movement comes from the ambiguity of scope of the *when* operator.

(101) John left when Sheila said he should leave.

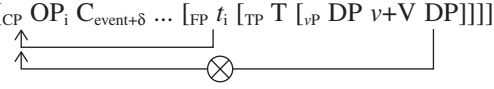
Larson (1987, 1990) proposes the following *wh*-movement representations for high (102a) and low (102b) construal (see also Geis 1970 and Johnson 1988, among others, for relevant discussion).

(102) a. John left $[_{CP}$ when$_i$ $[_{IP}$ Sheila said $[_{CP}$ $[_{IP}$ he should leave]] t_i]]
b. John left $[_{CP}$ when$_i$ $[_{IP}$ Sheila said $[_{CP}$ $[_{IP}$ he should leave t_i]]]] (Larson 1987)

The *wh*-operator in the C region blocks MCP operations such as topicalization to the same region.

Returning to the asserted/presupposed distinction that Hooper and Thompson draw, in their proposal, a clause containing a presupposed proposition does not allow an assertion-dependent operation because such an operation requires the clause to be assertive. Haegeman (e.g., 2006) notes that presupposed environments are factive in nature, and a number of linguists have proposed that factives involve operator movement (Melvold 1991; Hiraiwa 2010; Watanabe 1993, 1996; among many others; see also Munsat 1986 for relevant discussion). This operator, which begins above the TP (in Spec, F(unctional)P below), raises to Spec,CP. The idea is that, because an MCP operation such as topicalization or Negative Constituent Preposing targets C, such an operation is blocked by the occurrence of the factive operator in Spec,CP, just as we saw for the temporal adverbial clause above.

(103) $[_{CP}$ OP$_i$ C$_{event+\delta}$ ... $[_{FP}$ t_i $[_{TP}$ T $[_{vP}$ DP *v*+V DP]]]]



For English, all forms of topicalization would be blocked in this way.[13]

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What about Japanese? Since it is a discourse-configurational language, the δ-feature may lower to T, but for topic, this is true only for C- and F-topics because A-topics are universally located at C. While the A-topic competes with the factive operator at C, C- and F-topics do not because they operate in the TP region. We can see the same in Spanish, which is a language that allows the δ-feature to lower to T.

Before looking at the lack of an intervention effect in Spanish, let us see how Hooper and Thompson's verb classes fare in this language. As shown below, the classes match up perfectly with the indicative/subjunctive alternation: A, B, and E, which allow root transformations, take only indicative complement clauses, while C and D, which do not allow root transformations, only take subjunctive complement clauses.[14]

(104) Class A: say, report, exclaim (only indicative)
Él nos informó que rechazaron/*rechazaran el artículo.
he us informed that rejected.3PL.IND/rejected.3PL.SUBJ the paper
'He told us that they rejected the paper.'

(105) Class B: suppose, believe, think (only indicative)
Él creyó que rechazaron/*rechazaran el artículo.
he believed that rejected.3PL.IND/rejected.3PL.SUBJ the paper
'He thought that they rejected the paper.'

(106) Class C: be (un)likely, be (im)possible, deny (only subjunctive)
Es probable que *rechazaron/rechazaran el artículo.
is likely that rejected.3PL.IND/rejected.3PL.SUBJ the paper
'It is likely that they rejected the paper.'

(107) Class D: resent, regret, be surprised (only subjunctive)
Él siente que *rechazaron/rechazaran el artículo.
he regrets that rejected.3PL.IND/rejected.3PL.SUBJ the paper
'He regrets that they rejected the paper.'

(108) Class E: realize, learn, know (only indicative)
Hemos sabido que los vuelos a Chicago han/*hayan
have.PRS.1PL learned that the flights to Chicago have.PRS.3PL
sido cancelados.
been cancelled
'We have learned that the flights to Chicago have been cancelled.'

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The fact that only the subjunctive complement is allowed for C and D indicates that Hooper and Thompson's verb classification is valid for Spanish. Thus, while the indicative (A, B, E) may be used for assertion, the subjunctive cannot be so used (e.g., Giorgi 2010).

Now that we know that Hooper and Thompson's classification applies to Spanish, if Spanish were a Category II language such as English, we would expect topicalization to be blocked in classes C and D. However, the following, taken from Jiménez-Fernández and Miyagawa (2014), show that CLLD is possible in subordinate clauses that are subjunctive complements of C and D predicates.

(109) a. Es probable que el CD-ROM nunca lo haya
be.PRS.3SG probable that the CD-ROM never CL have.PRS.3SG
visto antes.
seen before
'It's probable that I have never seen the CD-ROM before.'
(Class C)

b. Ángela estaba sorprendida de que los
Angela be.PST.3SG surprised of that the
regalos los
presents CL
hubieran dejado los Reyes Magos debajo del árbol.
have.PST.3PL left the Kings Magicians under of.the tree
'Angela was surprised that the three Wise Men had left the presents under the Christmas tree.' (Class D)

This reinforces the analysis that in Spanish, the δ-feature lowers to T, making it possible for topicalization to take place within TP and avoiding the intervention effect that would be imposed at C as in English. Spanish is thus a Category III language. In chapter 5, we will see that the picture is slightly more complicated. It is true that Spanish is a Category III language relative to the topic feature, which lowers to T, but we will see that focus stays at C in Spanish. This is not in any way exceptional. Kiss (1995) originally noted a variety in discourse-configurational languages—in some languages topic is operative as the discourse-configurational feature, in others focus, and in the remainder, both topic and focus.

2.6 Topicalization and Relative Clauses

We saw earlier that relative clauses exhibit the root phenomena of allocutive agreement in Japanese and stylistic adverbs in English. The examples are repeated below.

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(110) Watasi-wa mizu-tama-moyoo-no ari-**mas**-u kami-ga hosi-i to
I-TOP polka dots exist-MAS-PRS paper-NOM want C
omoi-mas-u.
think-MAS-PRS
'I want the paper that has polka dots.' (Harada 1976)

(111) a. I hired a student who, frankly, no one else would hire.
b. I'm reviewing a manuscript for a journal that, honestly, should not have been submitted in the first place.

Hooper and Thompson also identified certain relative clauses as exhibiting MCP (what we are calling assertion-dependent phenomena): non-restrictive and indefinite restrictive relative clauses. The question is, does the ability of relative clauses to host allocutive agreement in Japanese and stylistic adverbs in English demonstrate that the relative clause is a Hooper and Thompson-style assertion domain or an Emonds-style root domain? The answer comes from the topic construction.

A-topics cannot occur in a relative clause, but C-topics can (Kuno 1973). I add an example of an F-topic, which is also possible in a relative clause.

(112) a. A-topic
*Taroo-ga [sono hon-wa Hanako-ga katta] mise-o sitteiru.
Taro-NOM that book-TOP Hanako-NOM bought store-ACC know
'Taro knows the store where [as for that book, Hanako bought it].'
b. C-topic
Taroo-ga [sono hon-WA Hanako-ga katta] mise-o
Taro-NOM that book-CONTR.TOP Hanako-NOM bought store-ACC
sitteiru.
know
'Taro knows the store where [that book, Hanako bought (but not this book)].'
c. F-topic
Taroo-ga [sono hon-o Hanako-ga katta] mise-o sitteiru.
Taro-NOM that book-ACC Hanako-NOM bought store-ACC know
'Taro knows the store where [that book, Hanako bought].'

The fact that the A-topic is ungrammatical, while C- and F-topics are grammatical, indicates that this is not an environment that allows assertion-dependent phenomena to occur. This is further indication that assertion-dependent phenomena and root environments are fundamentally different: assertion-dependent phenomena are dependent on whether the clause has assertive meaning, or, relatedly, whether it has a factive operator, but a root is a clause that is not selected by a head, which in turn allows the speech act projection to occur above the CP.

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2.7 Conclusion

In this chapter we looked at the typology of languages defined by Strong Uniformity. We looked particularly at languages that are predicted to have ϕ-feature agreement at C, namely, Category I and Category IV languages. Focusing on Category I, which includes Japanese, I argued that the politeness marking *-des-/-mas-* is 2nd person agreement at C. This is given support by allocutive agreement in some dialects of Basque, which is actually a 2nd person agreement form that agrees with the type of addressee in the conversation. Because allocutive agreement works like standard agreement, it must have a goal (target) within the syntactic structure, and I proposed that a superstructure reminiscent of Ross's performative analysis, which I call the speech act projection following Speas and Tenny (2003), is responsible for furnishing the goal of HEARER for allocutive agreement. We investigated the distribution of the speech act projection, and it turns out to have precisely the distribution that Emonds defined for the root. Although Emonds's root/non-root distinction has come to be questioned since the work of Hooper and Thompson, we saw that an entirely different set of data based on allocutive agreement in Japanese and stylistic adverbs in English gives credence to Emonds's original conception of the root as capturing an important generalization.

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3 Pro-Drop, E-Type Pronouns, and Agreement

3.1 Introduction

Over the past thirty years or so, one of the most extensively studied topics in generative grammar is the phenomenon of pro-drop. In some languages pro-drop occurs only in the subject position, while in other languages, pro-drop may occur in other argument positions (e.g., Chinese, Japanese, Portuguese). The latter type of language is sometimes called a radical pro-drop language, although it has been argued that the subject and non-subject empty elements may differ in nature, the subject being a "pro" while the object may be a silent variable (J. Huang 1984, Raposo 1989). In this chapter I will look at this phenomenon from the perspective of Strong Uniformity in order to address a particular property identified in the literature: the possibility of sloppy interpretation of pronouns—especially null pronouns—in the subject position. Using the term "null argument" in place of "null pronoun" to stay neutral i the debate about the nature of this position, I will show that the position of the ϕ-feature and the δ-feature in a particular language affects the possibility of sloppy interpretation for a null argument. In doing so, I will argue that a null argument associated with a sloppy interpretation is a pronoun, and not the result of argument ellipsis as widely assumed in the literature.

The following Japanese example demonstrates radical pro-drop.

(1) __ __ katta.
bought

'(She/he/they/etc.) bought (it/them).'

Both the subject and the object positions are null, and their interpretation is understood from the conversational context. It is also possible for the indirect object to be null, but not an adjunct.

(2) a. Hanako-wa Taroo-ni tegami-o okutta no?
Hanako-TOP Taroo-DAT letter-ACC sent Q
'Did Hanako send a letter to Taro?'

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b. Iie, __ __ __okur-anakat-ta.
no send-NEG-PST
'No, (she) didn't send (it) (to him).'

(3) a. Taroo-wa zitensya-de kuru no?
Taro-TOP bicycle-by come Q
'Is Taro coming by bicycle?'
b. #Iie, ko-nai yo.
no come-NEG EXPL
'No, (he) won't come (*by bicycle).'

(3b) can only mean that Taro won't come, not that he won't come by bicycle, since the instrumental is an adjunct and not capable of being a null argument.

There are three proposals for the nature of the null argument.

(4) Three proposals for the nature of the null argument:
a. pronominal (Kuroda 1965)
b. VP ellipsis, for the null object argument (Otani and Whitman 1991)
c. argument ellipsis (Oku 1998)

Kuroda in his 1965 MIT dissertation suggested that the empty element is a null version of the overt pronoun, citing similarities between the two. Kuroda's suggestion foreshadowed the study of pro-drop in the Government and Binding era by linguists such as Taraldsen (1978) and Rizzi (1986), who argued that the empty subject element in Romance languages such as Italian and Spanish is a null pronoun licensed by rich agreement (see also, e.g., Barbosa 1995, 2009). In the second approach, focusing on the fact that the null object argument allows the indefinite interpretation known as a sloppy reading, Otani and Whitman (1991), following a similar observation in Chinese by Huang (1987, 1989, 1991), argue that the null argument in Japanese results from VP ellipsis.

(5) a. Taroo-wa zibun-no gakusei-o hometa.
Taro-TOP self-GEN student-ACC praised
'Taro praised his own student.'
b. Ziroo-wa ___ home-nakat-ta.
Jiro-TOP praise-NEG-PST
'Jiro didn't praise ___.'
✓strict (Taro's student = him/her), ✓sloppy (Jiro's student)

The null argument may be interpreted as Taro's student, which would correspond to a pronominal interpretation (him/her/them), or it can be interpreted

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as Jiro's student. The latter is an indefinite interpretation, a sloppy reading of the null argument. Otani and Whitman, following Huang, argue that the latter reading cannot be due to a pronoun, but instead results from ellipsis. Following the study of VP ellipsis in English, which allows sloppy as well as strict interpretation, they associate the sloppy interpretation in Japanese with VP ellipsis. Following the general argument given earlier by Huang, they note that the reason why the verb is pronounced in Japanese under VP ellipsis, unlike in English, is due to V-to-T movement, which leaves all of the VP content except the verb as the target of ellipsis.

Oku (1998), in responding to Otani and Whitman (1991), accepts the idea that the null argument that allows sloppy interpretation is not a *pro* but some sort of an ellipsis. But he argues that the null argument cannot be due to VP ellipsis. Rather, he argues that it is due to a process of argument ellipsis. Oku's idea of argument ellipsis has become the dominant approach for null arguments associated with a sloppy interpretation. I will summarize Oku's study below.

Oku (1998), building on Otani and Whitman's (1991) observation that the null object argument in Japanese allows sloppy interpretation, argues that the null argument that allows this interpretation results from argument ellipsis, not from VP ellipsis. One argument Oku gives has to do with VP adverbs. In VP ellipsis, a VP adverb can be elided along with the other material in the VP.

(6) Mary cleaned the car carefully; John did, too.

The portion with ellipsis easily allows the interpretation that John also cleaned his car carefully. However, as Oku observes, the same is not true for Japanese.

(7) Taroo-wa kuruma-o teinei-ni aratta. Hanako-wa araw-anakat-ta.
Taro-TOP car-ACC carefully washed Hanako-TOP wash-NEG-PST
'Taro washed the car carefully. Hanako didn't wash it.'

The second sentence can only mean that Hanako didn't wash her car, and not that she didn't wash the car carefully. The impossibility of the adverb being contained in the ellipsis site excludes the possibility of VP ellipsis.[1]

Oku's second argument for argument ellipsis constitutes the basis for much of the discussion in the present chapter. He observes that what he terms argument ellipsis is possible in the subject position as well as the object position.

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(8) a. Mariko-wa [zibun-no kodomo-ga furansugo-o benkyoosuru to]
Mariko-TOP self-GEN child-NOM French-ACC study that
omotteiru.
think
Lit. 'Mariko thinks that self's child will study French.'
b. Haruna-wa [*e* surobeniago-o benkyoosuru to] omotteiru.
Haruna-TOP Slovenian-ACC study that think
Lit. 'Haruna thinks that *e* will study Slovenian.'
✓strict, ✓sloppy

The fact that the null subject argument allows the sloppy interpretation demonstrates unequivocally that this interpretation is not dependent on VP ellipsis.

Oku further notes that this subject null argument in Japanese is fundamentally different from the one in a typical pro-drop language such as Spanish. Unlike Japanese, Spanish and other Romance languages do not allow the sloppy interpretation.

Spanish

(9) a. María cree que su propuesta será aceptada.
Maria believes that her proposal will.be accepted
'Maria believes that her proposal will be accepted.'
b. Juan también cree que *e* será aceptada.
Juan also believes that will.be accepted
Lit. 'Juan also believes that *e* will be accepted.' (Oku 1998)
✓strict, *sloppy

What is the difference between Japanese and Spanish? According to Oku, it is the presence/absence of subject agreement that dictates whether the sloppy interpretation is possible. I will call this Oku's Generalization.

(10) Oku's Generalization (1998)
Agreement blocks argument ellipsis.

This is consistent with the study of Romance languages, in which it is shown that rich agreement licenses pro-drop (Taraldsen 1978, Rizzi 1986). If there is agreement, and there is a gap that is the target of this agreement, it would be an empty *pro*. According to Oku, this *pro* is referential and does not allow the sloppy interpretation. In Japanese, the absence of subject agreement opens the possibility that the empty element is something other than *pro*; Oku argues that the null argument is in fact a fully specified argument noun phrase that happens to be covert. Thus, in the example above, (8b), with a subject null argument allowing the sloppy reading, this null argument is the fully specified

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noun phrase *zibun-no kodomo* 'self's child'; the reflexive may be bound by the local matrix subject, *Haruna*, leading to the sloppy interpretation. Oku's argument ellipsis proposal has become the standard analysis for null arguments associated with sloppy interpretation, and we find further development of it in important works such as Saito (2007) and Takahashi (2008a,b).

Further evidence for Oku's Generalization comes from Portuguese, which allows null arguments in both the subject and object positions. Unlike Japanese, Portuguese has subject agreement (thanks to João Costa for the following examples).[2]

Subject:

(11) O Pedro disse que a mãe é bonita e o Paulo disse
The Pedro said that the mother is beautiful and the Paulo said
que ____ é feia.
that ____ is ugly
'Pedro said that his mother is beautiful, and Paulo said that ___ is ugly.'
✓strict, *sloppy

Object:

(12) O Pedro adora a mãe, mas o Paulo odeia ___.
The Pedro adores the mother, but the Paulo hates ___
✓strict, ✓sloppy

As shown, while the subject null argument does not allow a sloppy interpretation, the object null argument allows it easily. Below, I will give additional evidence for Oku's Generalization. Then, in the remainder of the chapter, we will look at evidence that the sloppy interpretation cannot be due to argument ellipsis as Oku suggested.[3] Nevertheless, I will show that Oku's Generalization survives, albeit in a different form related to topicalization. The proposal I will put forth differs from Oku's in that the sloppy interpretation of the subject *pro* is not directly tied to a lack of agreement. But the proposal also differs from that of Simpson, Choudhury, and Menon (2013), who argue that the possibility of sloppy interpretation is unrelated to agreement. Instead, I will argue that agreement is relevant, but only in triggering movement that leads to topicalization of *pro*, and it is topicalization that ultimately makes the sloppy interpretation difficult, although, as we will see, not impossible.[4]

3.2 Agreement in Chinese[5]

We just observed that in Portuguese, there is a subject/object asymmetry, in that the subject is blocked from being associated with a sloppy interpretation

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because of the subject agreement, while the object is free to be interpreted with this reading because it is not associated with agreement. Takahashi (2008a, 2013; Şener and Takahashi 2010) notes a similar subject/object asymmetry for sloppy interpretation in Chinese, Malayalam, and Turkish. While Turkish has subject agreement, Chinese and Malayalam do not, and thus are apparent counterexamples to Oku's Generalization that agreement blocks sloppy interpretation. Below, I will take up Chinese, then, in the next section, I will turn to Malayalam.

Chinese has no ϕ-feature agreement, yet Takahashi (2008a) notes that the subject null argument does not allow a sloppy reading.

Object:

(13) Zhangsan hen xihuan ziji de mama, Lisi bu xihuan *e*.
Zhangsan very like self DE mother Lisi not like
'Zhangsan likes self's mother, Lisi does not like *e*.'
✓strict, ✓sloppy

Subject:

(14) Zhangsan yiwei [ziji de haizi xihuan Yingwen]; Lisi yiwei [*e* xihuan
Zhangsan think self DE child like English Lisi think like
fawen].
French
'Zhangsan thought that self's child liked English; Lisi thought *e* liked French.'
✓strict, *sloppy

As shown, while the object null argument easily allows a sloppy reading, the subject null argument does not. Later in the chapter, we will see a slightly different judgment for the subject null argument with respect to sloppy interpretation, but for the time being we will accept Takahashi's observation. Based on this observation, Takahashi (2008a, 2013) suggests that Chinese has ϕ-feature subject agreement (see also Miyagawa 2010), a point I will uphold; this point will be maintained even when we consider data that appears to allow sloppy interpretation for the subject null argument in certain cases in Chinese.

What I will argue is that Chinese is a Category II language, thus its δ-feature stays at C while the ϕ-feature occurs at T.

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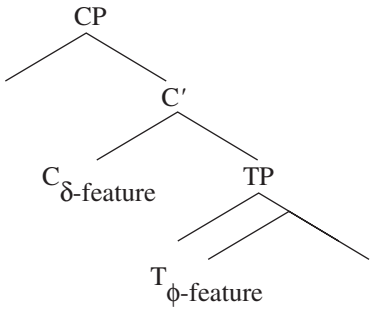
(15) Category II Language



I will demonstrate that the subject *pro* in Chinese takes full advantage of the Strong Uniformity notion that δ-features and ϕ-features are computationally equivalent. The subject *pro* has the option of taking on ϕ-feature agreement from its local T/AGR or, when it does not, taking on the δ-feature of topic by moving to the C region. Our analysis is based on the claim in Liu (2014) that the subject *pro* in Chinese is defective for both ϕ-feature agreement and a referential index. It must receive these features from some other source in the course of the derivation. Liu assumes that the subject *pro* has one source for both features, a topic operator in the C region local to the subject *pro* that passes on its referential index as well as its ϕ-feature. In contrast, Yang (2014) argues that the subject *pro* can occur either in the topic position or Spec,TP and the interpretation of *pro* varies depending on which position it occupies. If *pro* occurs in Spec,TP, it can only refer to an antecedent within the sentence—the closest subject (J. Huang 1984). If *pro* moves to the topic position in the CP region, it is able to refer to an entity outside the sentence. Yang does not deal with ϕ-feature agreement. I will combine Liu and Yang's analyses as follows. If *pro* receives ϕ-feature agreement from its local T/AGR, it stays in Spec,TP, and it can only take the closest subject as its antecedent. If *pro* does not take on the ϕ-feature of the local T/AGR, it moves to the Spec,CP that has the topic feature, and it becomes a topic that can refer to an entity outside the sentence.[6]

There is an irony in our approach and Oku's Generalization. Takahashi (2008a) argued that Chinese must have ϕ-feature agreement for its subject due to the inability of the subject *pro* to receive a sloppy interpretation. The ϕ-feature agreement obviously is covert since we do not find any manifestation of it morphologically. Our approach upholds Takahashi's conclusion that Chinese has covert ϕ-feature agreement. However, the construction that is pertinent to testing for sloppy interpretation—where the subject *pro* refers to an entity outside its sentence—is, in our analysis, a construction with a *pro*

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that lacks ϕ-feature agreement. So, the lack of sloppy interpretation in Chinese is caused by something other than the presence of ϕ-feature agreement. Sato (2015a) argues that the lack of a sloppy interpretation for the subject null argument in Chinese is due to the fact that it is topicalized, presumably because topicalization presupposes a definite/specific reference instead of the indefinite interpretation needed for sloppy interpretation.[7] Sato assumes that the gap is an elided argument instead of a *pro*. I will adopt his general idea, but instead of assuming argument ellipsis, I will instead assume with Liu and Yang that the subject gap is a *pro*, so that when it does not take on the sloppy interpretation, it is a topicalized *pro.* In fact, I will suggest that Oku's Generalization also derives from this idea of topicalization. Oku's Generalization states that when agreement occurs that targets a subject gap, this gap must be *pro,* and this *pro* does not allow sloppy interpretation. What I will argue instead is that *pro* is a topic when it is the target of "rich" agreement. Hence, such a *pro* does not easily allow sloppy interpretation, just as the topicalized subject *pro* in Chinese resists this interpretation. Our analysis, which is based on arguments provided by Oikonomou (to appear), does not assume argument ellipsis. Instead, I assume that all subject gaps are *pro*. When *pro* is interpreted with the sloppy reading, it is being interpreted as an E-type pronoun. Thus, the degree of difficulty of the sloppy interpretation observed in the literature is a reflection of how difficult it is to interpret the *pro* as an E-type pronoun. Finally, our analysis predicts that under the right circumstances, even a *pro* with agreement should allow a sloppy interpretation. We will see this for a variety of languages such as Chinese, Modern Greek, and even Spanish.

We begin our discussion from a different starting point, the binding possibilities of the anaphor *ziji* 'self' in Chinese. The system for regulating the binding of this anaphor will be used for the interpretation of the subject *pro*.

3.2.1 Anaphor Binding and Blocking

One piece of evidence that I gave in Miyagawa (2010) for the presence of ϕ-feature subject agreement in Chinese is the pattern of blocking in anaphor binding (see for example Y.-H. Huang 1984; Tang 1985, 1989; Pan 2001).

(16) Lisi$_i$ juede [Zhansan$_j$ dui ziji$_{i/j}$ mei xinxin].
Lisi think Zhangsan have self no confidence
'Lisi thinks that Zhangsan has no confidence in him/himself.'

(17) Lisi$_i$ juede [wo/ni$_j$ dui ziji$_{*i/j}$ mei xinxin].
Lisi think I/you have self no confidence
'Lisi thinks that I/you have no confidence in *him/myself/yourself.'

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(18) Wo_i juede [ni_j dui ziji$_{*i/j}$ mei xinxin].
I think you have self no confidence
'I think that you have no confidence in *me/yourself.'

(19) Wo_i juede [$Zhangsan_j$ dui ziji$_{(*)i/j}$ mei xinxin].
I think Zhangsan have self no confidence
'I think that Zhangsan has no confidence in (*)me/himself.'

(20) Nashi wo_i juede $Zhangsan_j$ dui ziji$_{i/j}$ mei xinxin
at that time I think Zhangsan have self no confidence,
jiu fangqi le.
then give up LE
'At that time, I thought that Zhangsan had no confidence in me/himself, so he/I gave up.'

As shown in (16), the anaphor may be bound locally, or it can take on a long-distance binding relation with the subject of a higher clause. As we can see in (17), the long-distance construal is blocked if the local subject is a pronoun with a participant feature of 1st or 2nd person. (18) shows that the blocking by the local 1st/2nd person subject holds even if the higher subject itself is 1st/2nd person. (19) shows that although a 1st/2nd person local subject triggers blocking, as we observed in (17)–(18), a 3rd person local subject does not for many speakers (e.g., Pan 2001). (20) is another example where a 3rd person local subject does not trigger agreement; I found that with this example, there is more agreement among speakers that the 3rd person local subject does not trigger blocking.

If we assume that the blocking effect applies within some sort of a person-agreement system, the absence of blocking by a 3rd person local subject amounts to the dichotomy one finds in many languages between participant and non-participant agreements.[8] While the participant agreement has all the features of a full agreement, the non-participant agreement does not, hence it is, in effect, an underspecified agreement (e.g., Holmberg 2005, Gutman 2004). For example, in Finnish and Hebrew, the participant agreements license pro-drop, but the non-participant agreement of 3rd person does not.

Standard Finnish (see also Holmberg 2005)

(21) a. *pro* reputin historian kokeessa.
failed-1SG history's in-test
'(I) failed the history test.'
b. *pro* reputit historian kokeessa.
failed-2SG history's in-test
'(You) failed the history test.'

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c. **pro* reputti historian kokeessa.
failed-3SG history's in-test
'(He)/(she) failed the history test.'

Hebrew

(22) a. *pro* nixshalti ba-mivxan be-historia.
failed-1SG in-the-test in-history
'(I) failed the history test.'

b. *pro* nixshalta ba-mivxan be-historia.
failed-2SG.M in-the-test in-history
'(You) failed the history test.'

c.**pro* nixshal/nixshela ba-mivxan be-historia.
failed-3SG.M/F in-the-test in-history
'(He)/(she) failed the history test.'

A summary of Chinese anaphor binding and blocking is as follows.

(23) Generalization on blocking (Pan 2001, Giblin 2015, etc.)
a. 3, 3
b. *3, 1/2
c. *1, 2; *2, 1
d. 1/2, 3

One approach to the blocking effect is based on the idea that long-distance binding of anaphors is implemented by covert movement of the anaphor to the head whose specifier contains the subject of the clause, a potential antecedent. This is based on the assumption that the anaphor is underspecified for some relevant feature—the person ϕ-feature—and it moves to a head whose specifier can furnish the necessary feature, making it possible for the anaphor to find the appropriate antecedent. To capture the pattern of blocking we saw above, the anaphor *ziji* moves to the local I(nfl), as shown in the first movement in (24) below. If this I has a participant feature by virtue of the subject being 1st/2nd person, the anaphor receives the participant-agreement feature, and the derivation stops with the anaphor taking the local 1st/2nd person subject as its antecedent. However, if the local I has the non-participant agreement of 3rd person, *ziji* can either stop there and take the 3rd person local subject as its antecedent or it can move up the structure and take a higher subject as its antecedent.

(24) LF raising of the anaphor (Cole, Hermon, and Sung 1990, Pica 1987, Battistella 1989, Huang and Tang 1991, Huang and Liu 2001)

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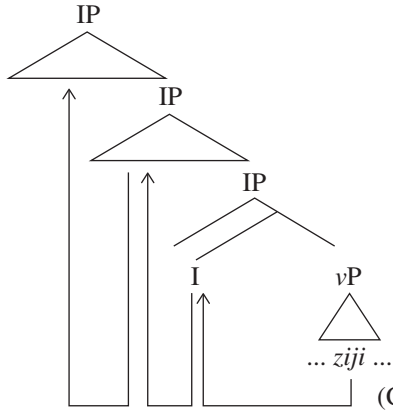

(Cole, Hermon, and Huang 2006)

While the LF-raising analysis works for the examples we have seen, there is a problem with this approach. As noted in the literature, long-distance construal of *ziji* is possible within islands.

(25) Zhangsan$_i$ shuo [$_{CP}$ ruguo Lisi piping ziji$_i$], ta jiu bu qu.
Zhangsan say if Lisi criticize self he then not go
Lit. 'Zhangsan$_i$ said that if Lisi criticized self$_i$, then he won't go.'
(Huang and Tang 1991, 271)

(26) Zhangsan$_i$ bu xihuan [$_{NP}$ [$_{CP}$ neixie piping ziji$_i$ de] ren].
Zhangsan not like those criticize self MOD person
Lit. 'Zhangsan$_i$ does not like those people who criticized self$_i$.'
(Huang and Tang 1991, 271)

Giblin (2015) proposes an approach that does not involve movement of the anaphor, hence overcomes the problem posed by the island data. He revives an analysis of long-distance anaphor construal proposed by Progovac (1992, 1993), who makes the key observation that anaphors that allow long-distance binding tend to be heads, not full DP/NPs (Yang 1983, Pica 1987; see also Cole, Hermon, and Sung 1990). There should be a parity of antecedent and anaphor, where both are either X^o or XP; the former include long-distance anaphors such as *ziji* and the latter the complex '-self' anaphor found in many languages. Provogac suggests that the antecedent of *ziji*, a head, is AGR (or Infl in other works on blocking that we saw), and that it is the only SUBJECT (Chomsky 1981) relevant to *ziji*'s binding. Furthermore, Progovac argues that the AGR in Chinese, which is morphologically empty, depends on AGRs higher in the structure for its content, in the sense of Borer (1983). Thus, an AGR "chain" is established, and *ziji* can be bound to any AGR in the chain. She further notes that this approach can capture the blocking effect.

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Let us make precise the nature of the anaphoric AGR in Chinese. Suppose that an AGR, which I presume to be T in the more recent approach, has the anaphoric feature α. Suppose further that this α is checked by a participant feature, as in (27a).

(27) a. [$_{TP}$ Wo 'I' T_{1SG} ~~α~~ …]
b. [$_{TP}$ Lisi T_{3SG} α …]

Once checked, the AGR/T cannot be anaphoric to a higher T/AGR. The system here is what Béjar and Rezac (2009) call cyclic agreement. In Georgian and Basque, a probe at *v* first looks to the complement of V to see if there is an entity with a participant ϕ-feature. If there is, the probe enters into agreement, and nothing else happens to the probe. However, if the complement is not an entity with a participant ϕ-feature, the probe looks to its specifier (the external argument) to see if it has a participant ϕ-feature. If it does, that is what the probe agrees with. If not, the probe takes on a default non-agreement morphology. In the case of Chinese, α is checked by a participant ϕ-feature only. If the T/AGR does not contain such a ϕ-feature, α is not checked, the anaphoric nature of T/AGR is maintained, and it forms a link with the higher T/AGR.[9]

The upshot of the discussion above is that Chinese has ϕ-feature agreement, and it is at T, and it agrees with the subject, whether the subject has a participant or non-participant ϕ-feature. This upholds Takahashi's (2008a) conjecture that Chinese must have a ϕ-feature for the subject because of the lack of sloppy interpretation for the subject empty *pro*. We turn to the discussion of subject *pro* in Chinese below, and will show that the system we just discussed for anaphor binding applies directly to the construal of the subject *pro*.

3.2.2 Subject *pro* in Chinese

Contrary to what has standardly been assumed, the subject *pro* in Chinese is highly restricted in its reference (Liu 2014; see also Y.-H. Huang 1984, Aoun and Li 2008). In virtually all cases, it needs a linguistic antecedent, unlike the null argument in Japanese and the subject *pro* in Romance. For example, the subject *pro* in Chinese may be used in monologues, but it is prohibited in a conversation where one speaker is referring to something mentioned by the other speaker.

Needs a linguistic antecedent:

(28) Yuehan hen congming, suoyi *pro* yiding keyi jin
John very smart, so definitely can enter
hen hao-de daxue.
very good-DE university
'John is very smart, so he can definitely enter a good university.'

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(29) Speaker A: John$_i$ not only always comes to class on time, but also gets an A in every subject. Most importantly, he is very humble.

Speaker B: *Suoyi e_i chang dang ban-zhang.
so often serve-as class-president
'So, he often serves as the class president.'

The Chinese subject *pro* further differs from its counterparts in Italian and Japanese in that it can only refer to the subject of the preceding sentence, while no such restriction is imposed in Italian and Japanese. In the latter languages *pro* can refer to either the subject or the object (Liu 2014).[10]

Subject orientation:

(30) a. Chinese
John$_i$ zuotian yujian-le Bill$_j$, suoyi *pro*$_{i/*j}$ hen kaixin.
John yesterday meet-ASP Bill so very happy
'John$_i$ ran into Bill$_j$ yesterday, so he$_{i/*j}$ was very happy.'

b. Italian
John$_i$ ha incontrato per caso Bill$_j$ ieri, così *pro*$_{i/j}$
John has meet-PST by chance Bill yesterday so
è stato molto contento.
has been very happy.3SG.M
'John$_i$ ran into Bill$_j$ yesterday, so he$_{i/j}$ was very happy.'

c. Japanese
John$_i$-wa kinoo Bill$_j$-ni dekuwasita; dakara *pro*$_{i/j}$
John-TOP yesterday Bill-into ran therefore
sugoku yorokondeita yo.
very was-pleased PRT
'John$_i$ ran into Bill$_j$ yesterday, so he$_{i/j}$ was very happy.'

There is also a locality restriction (J. Huang 1984), something we don't see either in Italian or Japanese. When the null subject in Chinese and its potential antecedent are separated by an additional subject, the sentence containing these constituents is less acceptable in Chinese, while the same sentence is felicitous in Italian and Japanese.

Locality:

(31) a. ??/*John$_i$ hen congming, suoyi laoshi renwei *pro*$_i$ keyi (Chinese)
John very smart so teacher think can
kao-jin hen-hao-de daxue.
test-enter very-good-DE university
'John$_i$ is very smart, so the teacher thinks that he$_i$ can pass the exam to enter a good university.'

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b. John$_i$ è intelligente, e il suo professore pensa che (Italian)
John is intelligent so the his professor thinks that
pro$_i$ possa entrare facilmente in una buona università.
can enter easily to one good university
'John is smart, so his teacher thinks that he can enter a good university.'

c. John$_i$-wa atama-ga ii node, kare-no (Japanese)
John-TOP head-NOM good because, he-GEN
sensei-wa [*pro*$_i$ ii daigaku-ni hair-e-ru to] omotteiru.
teacher-TOP good university-to enter-can-PRS COMP think
'John$_i$ is very smart, so his teacher thinks that he$_i$ can enter a good university.'

To deal with these special properties of the subject *pro* in Chinese, Liu (2014) proposes that this *pro* is defective in its feature content and also, though Liu does not explicitly state this, in its referential index. The *pro* must get its feature from somewhere, and if it refers to an entity outside of the sentence, also its referential capability as a pronoun. Liu's analysis is based on the idea that Chinese has a topic position in the CP region. Chou (2004) provides a clear argument that Chinese has a topic position that must be filled.

(32) a. * Yi-ge/*yixie/*ji-ge ren zai yuenzi-li zuozhe.
one-CL/some/several-CL person at yard-LOC sit.CONTIN
'A man/some men/several men is/are sitting in the yard.'

b. You yi-ge/yixie/ji-ge ren zai yuenzi-li zuozhe.
exist one-CL/some/several-CL person at yard-LOC sit.CONTIN
'There is/are a man/some men/several men sitting in the yard.'
(Chou 2004, 194)

The example in (32a) indicates that an indefinite expression such as 'a man/some/several-CL person' cannot occur at the head of a sentence because this is a topic position. Such an indefinite expression must occur in a construction of existence where the verb of existence *you* is the first item in the sentence as in (32b).

Taking advantage of the topic-prominent nature of Chinese, Liu (2014) proposes that there is a covert topic element in the immediate CP that contains the *pro*. Furthermore, he proposes that this topic has a ϕ-feature that gets its valuation by being coindexed with the higher subject. The *pro* in Chinese also has a ϕ-feature that is unvalued. Once the ϕ-feature on the topic is given valuation, it then passes on its valuation to the unvalued ϕ-feature on *pro*.

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(33) [SUBJECT … [$_{CP}$ TOPIC$_{[u\ \phi\text{-feature}]}$ [$_{TP}$ *pro*$_{[u\ \phi\text{-feature}]}$ …]]] (Liu 2014)

coindex valuation valuation

This way of viewing the subject *pro* in Chinese makes *pro* similar to an anaphor in that it does not have a fully independent referential index. Rather, it receives its features, particularly its person feature, through a chain of valuation from a linguistic antecedent. This is why the Chinese subject *pro* requires a linguistic antecedent.

I will revise Liu's analysis by taking up two issues that he does not deal with. First, in the following example, an object has been topicalized, but this does not prevent the subject *pro* from being coreferential with the higher subject (the example is taken from Yang 2014 for demonstrating another point, which we will return to shortly).

(34) Zhangsan$_i$ shuo [$_{CP}$ yuyanxue$_k$, [$_{IP}$ *pro*$_i$ du-guo t_k]].
Zhangsan say linguistics study-EXPER
'Zhangsan$_i$ said he$_i$ studied linguistics before.' (Yang 2014)

In this example, the object of the complement clause 'linguistics' has been topicalized and occurs at the left edge of the complement clause. Note that the subject *pro* is coreferential with the subject 'Zhangsan', which is predicted by Liu's analysis to be not possible since the topic position is taken up by something other than the covert topic that can pass on the ϕ-feature from the matrix subject to *pro*.[11]

Second, as Liu noted, it is possible under limited circumstances for the subject *pro* to refer to a previously mentioned entity in discourse.

(35) Q: Did Lisi$_j$ study linguistics before?
A: Zhangsan$_i$ shuo [$_{CP}$ $e_{i/j}$ mei du-guo yuyanxue].
Zhangsan say not study-EXPER linguistics
'Zhangsan$_i$ said he$_{i/j}$ hadn't studied linguistics before.'

Why is it that in this case, the covert topic can pick out an entity outside the sentence instead of just the higher subject?

There is evidence that the instances in which the subject *pro* refers to the higher subject and the instances in which it refers to an entity outside the sentence are in complementary distribution. First note that in the following sentence, which is a slightly modified example from Yang (2014), the subject *pro* may refer either to the matrix subject or to an entity outside the sentence so long as there is sufficient context.

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(36) Zhangsan$_i$ shuo [$_{CP}$ [$_{IP}$ *pro*$_{i/j}$ du-guo yuyanxue]].
Zhangsan say study-EXPER linguistics
'Zhangsan$_i$ said he$_{i/j}$ studied linguistics before.'

Now returning to the full example from Yang (2014), we see that topicalization of the object 'linguistics' blocks the subject *pro* from referring to an entity outside the sentence.

(37) Zhangsan$_i$ shuo [$_{CP}$ yuyanxue$_k$, [$_{IP}$ *pro*$_{i/*j}$ du-guo t_k]].
Zhangsan say linguistics study-EXPER
'Zhangsan$_i$ said he$_{i/*j}$ studied linguistics before.' (Yang 2014)

That is, topicalization of an overt item does not block the subject *pro* from being coindexed with the matrix subject, as Liu's system would predict, but rather, such topicalization blocks *pro* from referring to an entity outside of the sentence. Below, I will present an analysis of subject *pro* using the framework we saw for anaphor binding, and also adopting some aspects of the proposals in Liu (2014) and Yang (2014).

Let us begin by adopting Liu's (2014) idea that the subject *pro* in Chinese is defective in its feature designation—both person feature and referential index. It must get these from some other source. How does it get these features? I will assume that Chinese is a Category II language. This means that, like in English, the δ-feature, particularly topic, stays at C, while the ϕ-feature occurs at T. We saw the latter already with anaphor binding.

Recall Progovac's proposal that the AGR in Chinese is anaphoric to the higher AGR. It is from the higher AGR that the lower AGR gets its features. Imposing this system on the subject *pro*, we predict that this *pro* will be coreferential with the higher subject.

(38) [$_{TP}$ Zhangsan AGR$_{3PSG}$ ... [$_{TP}$ *pro* AGR α ...]]

The anaphoric AGR gets its person feature designation (3SG) from the higher AGR. Note that the anaphoric AGR itself does not get any valuation from its subject, *pro*, because the *pro* is defective in its feature content and incapable of valuation. The anaphoric AGR passes on its person feature to *pro*, thus making the higher subject the antecedent of *pro*. This predicts that nothing other than the immediate higher subject can function as the antecedent; a non-subject cannot function in this way because an object, for example, does not give valuation to AGR.

Suppose that valuation of *pro* by its local AGR does not take place. We presume that such an operation is purely optional since there is nothing that drives AGR to share its feature with *pro*. If nothing else happens, *pro* gets no

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reference of any kind, and the derivation crashes. However, there is one other option, an option that Yang (2014) suggests. He argues that *pro* may move to the topic position in the C region.

(39) $[_{TP} \ldots [_{CP}\ pro\ [_{TP}\ \underline{\quad}\ \ldots\ ]]]$

Although Yang (2014) does not have anything to say about the ϕ-feature of *pro*, I presume that he assumes that *pro* already comes with such a feature, contrary to Liu and to what we are assuming. On our account, *pro* moves to the topic position only if it does not get person valuation from the local AGR. As such it functions like a topic operator, which lacks inherent ϕ-features.

Recall that when the subject *pro* refers to a linguistic entity within the sentence, it must always refer to the subject. This is because the intra-sentential coreference is made possible by feature sharing of AGRs, and AGRs get their valuation only from subjects. However, if we are right that *pro* moves to the topic position only when it does not get feature valuation from its AGR, we predict that this *pro*, which would refer to an entity outside the sentence, should be able to refer to non-subjects. This prediction is borne out, as shown below (thanks to Barry Yang for creating the example).

(40) a. Mali, Zhangsan hen xihuan ta.
Mary Zhangsan very like her
'Mary, Zhangsan likes her very much.'
b. Danshi, Lisi shuo [*pro* yijing jiehun le].
but Lisi say already marry PRF
'But, Lisi said that [*pro* = Mary] is already married to someone.'

As shown, 'Mali', a non-subject, may be the antecedent for the subject *pro* in the second sentence. Given that the *pro* is in a topic position, it is also looking for a topic as its antecedent, hence it is most natural for 'Mali' to also be in the topic position as shown. Later in the chapter, I will introduce a large-scale survey in which we tested the possibility of sloppy interpretation of the subject *pro* in Chinese in these inter-sentential contexts.

3.2.3 Chinese Subject *pro* as a Weak Pronoun

In the literature on pronouns we find a distinction between strong and weak forms of pronouns (e.g., Cardinaletti and Starke 1999). The two forms are commonly distinguished in stress pattern, where the strong form receives greater stress and the weak form lesser stress, making the weak pronoun similar to clitics, although some linguists distinguish between weak pronouns and clitics as well. Along with the difference in stress, a number of linguists

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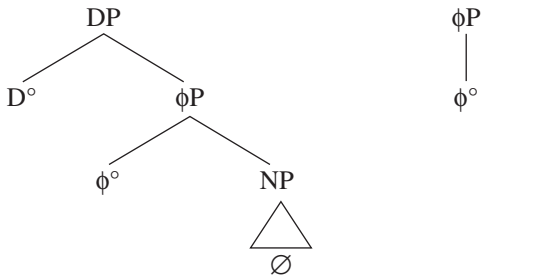
have argued that the strong and weak pronouns differ in structure, with the strong form having a more complex structure (e.g., Wiltschko 1998, Patel-Grosz and Grosz, in press). I will suggest that the subject *pro* in Chinese is the covert version of a weak pronoun, while the *pro* we find in Japanese and Romance is the covert form of a strong pronoun. I will further show that this distinction together with Strong Uniformity can account for an important proposal by J. Huang (1984, 1989) about Chinese *pro*.

Wiltschko (1998, 163–164) notes a difference in demonstrative and personal pronouns in German with regard to gender concord.

(41) a. **Ein Mädchen** kam zur Tür herein.
a.N girl(N) came to.the door in
'A girl came to the door.'
b. {**Das Mädchen/*Die Mädchen**} war schön.
the.N girl(N)/the.F girl(N) was beautiful
'The girl was beautiful.'
c. {**Das/*Die**} war schön.
DEM.N/DEM.F was beautiful
'She was beautiful.'
d. {**Es/Sie**} war schön.
PERS.N/PERS.F was beautiful
'She was beautiful.'
'**A girl** came through the door. {**The girl/She**} was beautiful.'

In (c), the demonstrative pronoun *das* agrees with the referent in gender, while *die*, a feminine demonstrative pronoun does not, and it is judged as ungrammatical.[12] In (d), we see that with a personal pronoun, gender mismatch is tolerated, allowing either the matching *es* or the mismatched *sie*. To capture the difference between the strong and weak forms, Wiltschko proposes the following two structures.

(42) a. demonstrative pronoun b. personal pronoun



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The demonstrative pronoun contains an NP that may have the full host of features including the gender feature. In contrast, the personal pronoun lacks the NP structure, so that it is not associated with any inherent features of its own.[13] This is precisely the difference we found between the Japanese/Romance *pro* and the Chinese subject *pro*. Furthermore, note that while the demonstrative pronoun has the DP structure, the personal pronoun does not. We can interpret this difference as leading to the demonstrative pronoun having an independent referential index, so that it is able to make reference, while personal pronouns do not. We saw this difference as well between the Japanese/Romance *pro* and its Chinese counterpart. Thus, what we find in the covert pronominal system across languages mirrors the overt system we find in a variety of languages. One puzzle that remains has to do with acquisition. How do Chinese children figure out that the subject *pro* in the language they are acquiring is the weak form of the pronoun? In languages with overt strong and weak forms, there is at least a phonological difference as we noted. But in the covert system, there is nothing obvious that signals that the Chinese *pro* is the weak form while the *pro* in Japanese and Romance is the strong form. I leave this as a puzzle.

3.2.4 On J. Huang's (1984) Generalized Control Rule

J. Huang (1984) proposed the influential Generalized Control Rule. He noted that a *pro*/PRO takes the closest potential antecedent. In Huang (1989, 193), he provided a formal formulation.

(43) Generalized Control Rule (GCR)
An empty pronominal is controlled in its control domain (if it has one). α is the control domain for β iff it is the minimal category that satisfies both (a) and (b):
(a) α is the lowest S or NP that contains (i) β, or (ii) the minimal-maximal category containing β.
(b) α contains a SUBJECT accessible to β.

The GCR has the effect of forcing the subject *pro* in Chinese to take the closest subject as its antecedent. We saw this in examples such as the following.

(44) ??/*John$_i$ hen congming, suoyi laoshi renwei *pro*$_i$ keyi
John very smart so teacher think can
kao-jin hen-hao-de daxue.
test-enter very-good-DE university
'John$_i$ is very smart, so the teacher thinks that he$_i$ can pass the exam to enter a good university.'

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There are two questions that come up about the GCR. First, as we saw earlier, while the subject *pro* in Chinese must obey this strict locality requirement, the *pro* in Japanese and Romance does not. Why should that be the case? Second, I argued that the valuation of the subject *pro* in Chinese takes place within the same system as the agreement that makes anaphor binding possible. As we have seen, the Chinese anaphor allows long-distance binding so long as there is no blocking.

(45) Lisi_i juede [Zhangsan_j dui $\text{ziji}_{i/j}$ mei xinxin].
Lisi think Zhangsan have self no confidence
'Lisi thinks that Zhangsan has no confidence in him/himself.'

Why doesn't something like the GCR apply to anaphor binding if both *pro* and the anaphor are operating within the same system of agreement?

I suggest that the GCR effect of locality on the Chinese subject *pro* follows from its property as a weak pronoun. As a weak pronoun—maybe "weakest" pronoun might be more suitable—it lacks inherent ϕ-features. To be coreferential with a linguistic antecedent within the sentence, it must take on the ϕ-features of its antecedent through the system of anaphoric T/AGR. Up to this point, there is nothing that would force *pro* to pick the closest subject. What forces the locality has to do with the other part of being a weak pronoun: lacking a referential index. If *pro* is not given valuation by its local T/AGR, the next immediate possibility for *pro* to find an antecedent is to be topicalized, and this is what it does. This excludes *pro* from taking a subject further than the closest subject as its antecedent, since the closest subject's ϕ-feature was not transmitted to *pro*. If this line of analysis is on the right track, the characterization of the Chinese subject *pro* as a weak pronoun, together with the assumption of Strong Uniformity, accounts for the GCR effect and the observed differences between this *pro* and the *pro* in Japanese and Romance.[14]

For the second point, about the strict locality of the Chinese subject *pro* and the possibility of long-distance construal of the anaphor, we have just seen the reason why *pro* is strictly local. The locality comes from the idea that *pro* lacks both a ϕ-feature and a referential index, and if it fails to get the ϕ-feature of the local T/AGR, it raises to Spec,CP to become a topic and gain the ability to refer out of the sentence. In contrast, the anaphor *ziji* receives ϕ-features from its local T/AGR, since the Spec,TP is occupied by a XP that has ϕ-features. Therefore, there is no need for *ziji* to undergo topicalization (it's not even clear if it could). It therefore always becomes the antecedent of the AGR, and if the AGR is able to be anaphoric to a higher AGR, then long-distance construal ensues.

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3.3 Malayalam

Like Chinese, Malayalam does not have subject agreement, yet Takahashi (2013) reports that the subject *pro* does not allow a sloppy interpretation, suggesting that there is covert agreement just like in Chinese.[15]

(46) a. John tan-te amma-ye sneehik'k'unnu.
John self-GEN mother-ACC love
'John loves his mother.'
b. Bill-um *e* sneehik'k'unnu.
Bill-also love
Lit. 'Bill loves *e*, too.'
✓strict, ✓sloppy

(47) a. John paRaññu [tan-te kuTTi English samsaarik'k'um ennə].
John said self-GEN child English will.speak COMP
'John said that his child would speak English.'
b. Mary paRaññu [*e* French samsaarik'k'um ennə].
Mary said French will.speak COMP
Lit. 'Mary said that *e* would speak French.'
✓strict, *sloppy

I will simply note below that Malayalam has the kind of blocking we saw in Chinese. We saw that blocking implies the existence of person agreement that applies to subjects.

3.3.1 Binding of *Taan* 'Self/You'

One striking property of the Malayalam anaphor *taan* is its anti-local nature. *Taan* in the object position cannot be bound by its local subject. If *taan* is inside a larger noun phrase, it can take the local subject as antecedent, otherwise it must seek its antecedent in the higher clause.

(48) Anti-local nature of *taan*
a. *raaman$_i$ tan$_i$-ne sneehikkunnu.
Raman self-ACC loves
'Raman loves himself.' (Jayaseelan 1997, 191 (10a))
b. raaman$_i$ [tan$_i$-te bhaarya-ye] sneehikkunnu.
Raman self-GEN wife-ACC loves
'Raman$_i$ loves his$_i$ wife.' (Jayaseelan 1997, 191 (10b))
c. vinu$_i$ [tan$_i$-te mukalil] oru vimanam kaNDu.
Vinu self-GEN above a plane saw
'Vinu$_i$ saw a plane above him$_i$.'

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This anti-local nature makes it look as if *taan* is a pronoun and not an anaphor. However, if it is a pronoun, one would expect it to have independent reference. As noted by Swenson and Marty (2014), the antecent of *taan* must be found within the sentence in which *taan* occurs. The pronoun and *taan* are shown below.

(49) a. vinu avan-te kutti-ye nulli.
Vinu him-GEN child-ACC pinched
'Vinu$_i$ pinched his$_{i/j}$ child.'
b. vinu tan-te kutti-ye nulli.
Vinu self-GEN child-ACC pinched
'Vinu$_i$ pinched his$_{i/*j}$ child.'

The pronoun *avan* in (a) may refer to the subject *vinu* or to some entity outside of the sentence, but *taan* in (b) may only take the sentential subject *vinu* as its antecedent.

The second property of *taan* is that its antecedent is a subject, something typical of anaphors that allow long-distance construal.

(50) raajaawu$_i$ manRi$_j$-kku tan$_{i/*j}$-te pustakam koDuttu.
king minister-DAT self-GEN book gave
'The king$_i$ gave the minister his$_{i/*j}$ book.'

(51) [mantRi$_k$ tan$_{i/k/*j}$-te bhaarya-ye nuLLi ennu] raajaawu$_i$
minister self-GEN wife-ACC pinched COMP king
seenaa-naayakan$_j$-ooDu parannju.
army-chief-SOC said
'The king$_i$ said to the army chief$_j$ that the minister$_k$ pinched his$_{i/k/*j}$ wife.'

(Jayaseelan 1997, 188 (3))

3.3.2 Blocking

It is not the case that *taan* can take any non-local c-commanding subject as its antecedent. The standard generalization is that when a 1st person or 2nd person subject pronoun intervenes between *taan* and a 3rd person non-local subject, *taan* cannot take the 3rd person non-local subject as its antecedent. This is the same blocking effect we saw in Chinese.

(52) Blocking
a. 3rd person$_i$ … [3rd person … *taan*$_i$ …]
b. *3rd person$_i$ … [1st/2nd person … *taan*$_i$ …]

What we see here is the same pattern that we saw in Chinese: a split between participant and non-participant, where 1st and 2nd person represent the

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conversational participants the speaker and the addressee while 3rd person represents a non-participant. The generalization above states that if a participant pronoun intervenes, a non-participant pronoun in the higher clause is blocked from functioning as the antecedent of *taan*. Following are examples of blocking from Jayaseelan (1997, 1998), taken from Swenson and Marty (2014). One point about *taan* is that along with being an anaphor, it can serve as an independent 2nd person; in the (b) example, there is no possible antecedent for *taan* due to blocking and the anti-local nature of *taan*, leaving only the 2nd person 'you' interpretation for *taan*.

(53) Examples of blocking

a. [vinu$_k$ tan$_{i/ADDR/*j}$-ne nuLLi ennu] meera$_i$ suman$_j$-inoDu parannju.
Vinu self-ACC pinched COMP Meera Suman-SOC said
'Meera said to Suman that Vinu pinched {her, you, *him, *himself}.'

b. [naan$_k$ tan$_{ADDR/*j/*j/*k}$-ne nuLLi ennu] meera$_i$ suman$_j$-inoDu parannju.
I self-ACC pinched COMP Meera Suman-SOC said
'Meera said to Suman that I pinched {you, *her, *him, *myself}.'

c. *[nii$_k$ tan$_{i/j/k}$-ne nuLLi ennu] meera$_i$ suman$_j$-inoDu parannju.
you self-ACC pinched COMP Meera Suman-SOC said
'Meera said to Suman that you pinched {*her, *him, *yourself}.'

In (c), we see a restriction on the interpretation of *taan* as 'you': if there is a 2nd person subject, *taan* cannot take on the 'you' interpretation, making (c) completely ungrammatical because there are no possible antecedents for *taan* in the sentence.

Jayaseelan (1997, 1998) adopts an LF-anaphor-raising analysis (e.g., Chomsky 1986, Cole, Hermon, and Sung 1990) to deal with blocking: *taan* lacks certain features, and it raises at LF to obtain these features (see also Battistella 1989, Cole, Hermon, and Sung 1990, Huang and Tang 1991, among others, for a similar analysis in other languages). Once it gets the features from the local subject, it can continue to raise and be associated with an antecedent in the higher clause, but only if the features match. Thus, if the local subject is 3rd person, it can continue to the next clause and take the higher 3rd person as its antecedent. But if the local subject is a participant pronoun, *taan* is imbued with this feature, and if it raises to the higher clause that has a 3rd person pronoun, there is a clash in agreement, resulting in the blocking effect. See Anand (2006) for a different approach to blocking. Whatever the system we adopt for dealing with blocking, it is clear that we must postulate an agreement

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system that applies to the subject. This supports Takahashi's (2013) contention that there must be covert agreement in Malayalam.

In the remainder of the chapter, I will shift the perspective and argue that while agreement does affect the possibility of sloppy interpretation of the subject *pro*, it is not hard and fast, and there are clear cases of subject *pro* under agreement that allow a sloppy reading. I will argue that there is no argument ellipsis, that the empty element is always a *pro*, thus supporting the original idea of Kuroda (1965) that the gaps are pronominal in nature.

3.4 Toward a Unified Analysis

Oku (1998) observed that *pro* in Spanish does not allow a sloppy interpretation, leading to what we are calling Oku's Generalization: agreement blocks argument ellipsis. His example is repeated below.

(54) a. María cree que su propuesta será aceptada.
Maria believes that her proposal will.be accepted
'Maria believes that her proposal will be accepted.'
b. Juan también cree que *e* será aceptada.
Juan also believes that will.be accepted
Lit. 'Juan also believes that *e* will be accepted.' (Oku 1998)
✓strict, *✓sloppy

Contrary to Oku's Generalization, Duguine (2014) points out that even in Spanish the subject *pro* may yield a sloppy interpretation in special contexts.[16]

(55) a. María cree [que su trabajo **le** exigirá
Maria believes that her work **CL.3SG.DAT** require.FUT.3SG
mucho tiempo].
much time
'Maria believes that her work will require a lot of her time.'
b. Y Ana espera [que *e* **le** dejará los fines de semana
and Ana hopes that **CL.3SG.DAT** leave.FUT.3SG the ends of week
libre].
free
Lit. 'And Ana hopes *e* will leave her the weekends available!'
✓sloppy reading: 'Ana hopes that Ana's work will leave her the weekend available.'

(Duguine 2014, 520)

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According to Duguine, the difference between this sentence, which allows sloppy interpretation, and Oku's earlier example is the presence of the clitic; Duguine states that the clitic is necessary for sloppy interpretation. We will see below that the sloppy interpretation is possible even without the clitic so long as there is sufficiently rich context to induce the reading.

Accepting that sloppy interpretation is made possible by argument ellipsis, and based on the observation that even in Spanish, the subject null argument allows sloppy interpretation, Duguine proposes a unified account of null arguments.

(56) Unified account of null arguments (Duguine 2014)
All null arguments are the result of argument ellipsis.

Importantly, in her approach there is no *pro*; null arguments that in earlier literature were described as *pro* are the result of argument ellipsis. In the remainder of this chapter, I will follow Duguine's line of investigation in postulating a unified account of null arguments. Unlike Duguine, I will argue, following Oikonomou (to appear), that all instances of null arguments, including those that yield sloppy interpretation, are *pro*, thus taking us back to Kuroda's (1965) original conception that the gap is pronominal in nature.

3.4.1 Unified Account Based on *pro*

Duguine's observation that the Spanish *pro* may take on a sloppy interpretation may be replicated in Modern Greek (Oikonomou, to appear).

(57) a. i Maria pistevi oti i dulja tis **tis** troi poli
the Maria believes that the job her.POSS **CL.3SG.DAT** eat much
hrono.
time
'Maria believes that her job requires her a lot of time.'

b. i Ana elpizi oti tha **tis** afini ligo elefthero hrono.
the Ana hopes that FUT **CL.3SG.DAT** leave little free time
'Ana hopes that *e* will leave her some time.'
✓sloppy reading: 'Ana hopes that Ana's work will leave her some time.'

As in the case of Spanish, there is a clitic that somehow induces the sloppy interpretation. Having made this observation, Oikonomou notes that there is a problem with Duguine's unified account of argument ellipsis. She points out that Runić (2014) observes that in Serbo-Croatian a clitic can get a sloppy interpretation in certain contexts. Below is a Modern Greek example from Oikonomou (to appear) designed after Runić's example.

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(58) a. i Maria pistevi oti tha **tis** epistrepsun to vivlio
the Maria believes that FUT **CL.3SG.DAT** return the book
tis.
her.POSS
'Maria believes that they will give her back her book.'

b. i Ana elpizi oti tha **tis** **to** ekdosun.
the Ana hopes that FUT **CL.3SG.DAT** **it.**CL publish
'Ana hopes that *e* they will publish it.'
✓sloppy reading: 'Ana hopes that they will publish Ana's book.'

This example cannot be due to argument ellipsis given that the object clitic appears, and it is this clitic that is somehow making the sloppy interpretation possible. What is it about the clitic that allows this interpretation? As Oikonomou points out, it is well-known that object clitics allow E-type pronoun interpretation. She argues that it is this E-type pronoun phenomenon that makes the sloppy interpretation possible. In fact, going back to Duguine's example, Oikonomou points out that the inclusion of the clitic induces a context that is germane for E-type pronoun interpretation.

Following are some main properties of E-type pronouns.

(59) E-type pronoun (see, for example, Evans 1977)
- unbound anaphoric pronoun
- replace the pronoun with a full NP whose semantics is taken to be well-known
- hence, the pronoun is not interpreted directly, but is first replaced by a full NP whose content is retrieved from the discourse context (see Heim 1990, Moltman 2006, Patel-Grosz and Grosz 2010, Nouwen 2014, Patel-Grosz and Grosz, in press)

A classic example of an E-type pronoun is the donkey sentence.

(60) a. If a farmer owns a donkey, he usually beats **it.**
b. If a farmer owns a donkey, he usually beats [the donkey owned by x].

As shown, the E-type pronoun has the interpretation of a full NP that contains a variable (*the donkey owned by x*) where the variable would covary with *farmer*. This is precisely the interpretation that would underlie a sloppy interpretation. We get an E-type pronoun interpretation even with overt pronouns, in what is called the "paycheck" example (Karttunen 1969). I have changed the example slightly to make it less provocative.

(61) The man who gave his paycheck to his wife was wiser than the man who gave it to his child.

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The pronoun *it* does not refer to the paycheck of the first man, but to that of the second man, thus this is a sloppy interpretation since there is no clear reference for the second man's paycheck. Based on these kinds of interpretation of pronouns, Oikonomou proposes a revised unified account of null arguments.

(62) Revised unified approach (Oikonomou, to appear)
All instances of "pro-drop," including those that allow sloppy interpretation, are "*pro*." The sloppy interpretation is an instance of an E-type pronoun.

The idea that sloppy interpretation is related to an E-type pronoun is similar to Tomioka's (2003) proposal that the element that gets this interpretation is type <e,t> (a predicate); it must have Existential Closure; and it is type-shifted from predicate to individual. The idea is also related to the "indefinite pronoun" idea of Hoji (1998), which I will discuss later.

3.4.2 Evidence That the Sloppy Interpretation Cannot Be Due to Argument Ellipsis

Oikonomou (to appear) notes examples such as the following.

(63) a. O babas tis Marias den tin afini na pai se parti
the dad the Maria.GEN not **CL.3SG.ACC** allow SUBJ go.3SG to parties
giati ine poli afstiros.
because is very strict
'Maria's dad didn't let her go to parties because he is very strict.'

b. tin Ana antitheta tin afini na kani
the Ana.ACC on the contrary **CL.3SG.ACC** allow SUBJ do.3SG
oti theli giati ine poli modernos.
whatever wants because is very modern
'Ana, on the contrary, he lets her do whatever she wants because he is very modern.'
✓sloppy reading: 'Ana, on the contrary, Ana's dad allows her to do whatever she wants.'

What is striking about this example is that the "antecedent" noun phrase in the subject position is 'Maria's dad' and, despite the presence of the proper name 'Maria', the null argument in the subject position of the second sentence allows sloppy interpretation of 'Ana's dad'. Clearly, argument ellipsis cannot possibly be the source of this sloppy interpretation since the argument, if it were elided, would be 'Maria's dad', which contains the proper name 'Maria' that would conflict with the null argument being interpreted as 'Ana's dad'. According to Oikonomou, she consulted 16 speakers and all 16 found the sloppy interpretation acceptable.

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Similar examples in Japanese are given below. (Thanks to the graduate student group at Kyushu University for the examples.)

(64) Tanaka-san-wa, **Tanaka-san-no nensyuu-ga**
Tanaka-san-TOP Tanaka-san-GEN_salary-NOM
20% hetta to itteiru no ni taisi,
20% declined C said in contrast
Nakamura-san-wa, 20% fueta to itteiru.
Nakamura-san-TOP 20% increased C said
'Mr. Tanaka said that Mr. Tanaka's salary declined by 20%, but Ms. Nakamura said that ___ increased by 20%.'
✓sloppy: "Ms. Namakura said that Ms. Namakura's salary increased by 20%.'

(65) Keisityoo-wa, sakunen-no **Tookyooto-no hanzairitu-ga** agatta
Tokyo Police-TOP last.year-GEN Tokyo-GEN crime.rate-NOM increased
to happyoosita.
C announced
Fukuoka kenkei-wa ___ sagatta to happyoosita.
Fukuoka Prefectural.Police-TOP declined C announced
'The Tokyo Police announced that Tokyo's crime rate increased last year. Fukuoka Prefectural Police announced that ___ declined.'
✓sloppy: 'Fukuoka Prefectural Police announced that Fukuoka's crime rate declined.'

Just as with the Modern Greek example, the "antecedent" noun phrase in the subject position of the first clause or sentence contains a proper name (Mr. Tanaka/Tokyo), yet the null subject in the subject position of the second clause/sentence easily allows the noted sloppy interpretation. The source cannot be argument ellipsis, and it also cannot be a simple *pro* that refers to something directly in the prior discourse.

The examples above give straightforward evidence that the sloppy interpretation cannot be due to argument ellipsis. At the same time, the null argument cannot be a simple *pro* due to the fact that it is getting its meaning indirectly from the context. This makes it an E-type pronoun. We can in fact find independent evidence that the E-type pronoun must exist in Japanese. Following is a Bach-Peters sentence (Bach 1967) that demonstrates that *it* in English has an E-type pronoun interpretation.

(66) Every pilot who shot at it hit the MIG that chased him.

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There are two pronouns, *it* and *him*. Each is inside the antecedent of the other, so that if one were to interpret these pronouns as regular pronouns, one would get infinite regress: every pilot who shot at [the MIG that chased [every pilot who shot at [the MIG that chased [every pilot who shot at the MIG …]]]…] hit the MIG that chased [every pilot who shot at [the MIG that chased [every pilot …]] …]. The fact that the sentence is perfectly interpretable means that the two pronouns have an interpretation other than the standard pronominal one, and this would be the E-type pronoun reading.

Following is a Japanese example with the same property of infinite regress if the null arguments are interpreted as a normal *pro*; thanks to Masako Maeda for coming up with the example.

(67) Sizen-bunben-de ___ unda subete-no hahayoa-ga,
natural-birth-by gave.birth all-GEN mothers-NOM
___ egao-o misete-kureta
smile-ACC showed
akatyan-o gyutto dakisimeta.
baby-ACC tightly hugged
'Every mother who gave birth to _(it)_ by natural birth tightly hugged the baby that smiled at _(her)_.'

On a standard *pro* interpretation, the sentence would be uninterpretable due to infinite regress: every mother who gave birth to [the baby that smiled at [every mother that gave birth to [the baby that that smiled at …]] …] hugged the baby that smiled at [every mother who gave birth to [the baby that smiled at [every mother that gave birth to [the baby that smiled at …]] …]. This is independent evidence that the null argument in Japanese may be an E-type pronoun.

3.4.3 On Hoji (1998)

The E-type pronoun approach to sloppy interpretation of null arguments is similar in many ways to Hoji's (1998) proposal. According to Hoji, the sloppy interpretation is due to a covert indefinite noun phrase.

(68) a. Taroo-wa zibun-no kuruma-o aratta.
Taroo-TOP self-GEN car-ACC wash.PST
'Taroo washed his car.'
b. Hanako-mo *e* aratta.
Hanako-also washed
'Hanako also washed ___.'

In the gap is an indefinite noun, something like *kuruma* 'car', and we get the sloppy reading from imposing Hanako as the possessor of this car. However,

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Saito (2003, 2007) points out a problem with Hoji's approach. The following is taken from Saito's work.

(69) a. Taroo-wa zibun-no kuruma-o aratta.
Taroo-TOP self-GEN car-ACC wash.PST
'Taroo washed his car.'
b. Demo Hanako-wa *e* arawanakatta.
but Hanako-TOP wash.not.PST
'But Hanako didn't wash it/her car.'
Allows either strict or sloppy interpretation while negating the other.

The gap in (69b) may be interpreted as strict or sloppy. Saito notes that the negation negates one interpretation while allowing the other reading to survive. For example, the sentence may mean that Hanako didn't wash her own car (sloppy), but it does not necessarily mean that Hanako did not wash Taro's car (strict). As Saito notes, Hoji's analysis incorrectly predicts that the meaning for (69b) is the following:

(70) Demo Hanako-wa kuruma-o arawanakatta.
but Hanako-TOP car-ACC wash.not.PST
'Hanako didn't wash a car.'

This sentence negates all possible readings where Hanako washed a car. However, if we convert Hoji's indefinite *kuruma* 'car' into an E-type pronoun, whose interpretation would contain a variable, [*x kuruma* 'car'], we get the right result. The negation can be on either the strict or the sloppy interpretation but not necessarily on both, allowing the other interpretation to survive, as Saito observes.

3.5 E-Type Pronouns and Agreement

Oku's Generalization states that if agreement targets a null argument, it must be *pro*, but if there is no agreement, the null argument may be the result of argument ellipsis. The point here is that the null argument is either *pro* or argument ellipsis, and it is argument ellipsis that makes sloppy interpretation possible. But what we saw above are cases of sloppy interpretation that cannot be due to argument ellipsis. Because the only empirical argument for argument ellipsis is the existence of sloppy interpretation, if sloppy interpretation can result from something other than argument ellipsis, the case for argument ellipsis is considerably weakened. Moreover, we have cases of overt pronouns in English that allow a sloppy interpretation in certain contexts that license an E-type pronoun reading. For these reasons, I argued, following Oikonomou (to appear), that the sloppy interpretation is due to an E-type pronoun. But

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then the question arises, if the null argument is uniformly a *pro,* what is the role of agreement? That is, what is the status of Oku's Generalization in this unified *pro* approach to null arguments?

There does appear to be a fundamental difference between null arguments with and without agreement. Unlike Oku's original observation, what appears to be the case is that agreement makes the sloppy/E-type pronoun reading less readily available, not impossible as is assumed in much of the literature on the topic. Later in the chapter, I will report on a study of Chinese and Japanese with a large number of speakers to see how easy or difficult it is to interpret the subject null argument with a sloppy interpretation. For now, let me give the gist of the study and present an analysis of the role of agreement relative to subject *pro*. The following is a Japanese example from the study.

(71) a. Shirota-san-wa, zibun-no haizokusaki-ga Ootaku-da to
Shirota-TOP self-GEN assigned location-NOM Ota Ward-COP that
omotteiru.
think
'Mr. Shirota thinks that self's assigned location is Ota Ward.'
b. Takahara-san-wa, _____ Suginamiku-da to omotteiru.
Takahara-TOP Suginami Ward-COP that thinks
'Mr. Takahara thinks that _____ is Suginami Ward.'
a. Mr. Shirota's assigned location 86/100 86%
b. Mr. Takahara's assigned location 92/100 92%

When asked what the gap means—Mr. Shirota's assigned location (strict), Mr. Takahara's assigned location (sloppy)—92 out of 100 (92%) said that the sloppy interpretation is possible. 86 out of 100 said that strict is also possible. This response was without any context given for the sentences. Compare this to its Chinese counterpart.

(72) Li xiansheng shuo ziji bei fenpeidao de didian shi
Mr. Li say self PASS allocated DE location is
Haidianqu fengongsi,
Haidian District branch
Wang xiansheng shuo _____ shi Dongchengqu fengongsi.
Mr. Wang say is Dongcheng District branch
'Mr. Li said that self's assigned location is Haidian District branch,
Mr. Wang said that _____ is Dongcheng District branch.'
Question: Who is assigned to Dongcheng District branch, according to Mr. Wang?
A. Mr. Li 79/103 76.7%
B. Mr. Wang 19/103 18.4%

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Of the 103 subjects, 19, or 18.4%, gave the sloppy interpretation as a possibility (76.7% gave the strict interpretation as a possibility). In the second part of the test, the following context was presented, followed by the same example.

(73) Context: Mr. Li and Mr. Wang are new employees of a company. The company has just released the document showing the assigned branches of all the new employees.

With this context given, the percentage of those who perceived the sloppy interpretation rose to 64% (66/103) from the presentation of the example without this context (18.4%). The percentage of those who gave the sentence the strict interpretation understandably went down, to 27.2% from 76.7%, since the context favored the sloppy interpretation. The point to underline is that while the sloppy interpretation is difficult, it is not impossible, and it becomes readily possible for many speakers with an appropriate context. This militates against an approach that differentiates the nature of the null argument, as in *pro* versus argument ellipsis (e.g., Oku 1998; Saito 2007; Takahashi 2008a, 2013; Şener and Takahashi 2010).

We see a similar pattern in Modern Greek. Although we did not run a study as we did with Japanese and Chinese, Vassilis Spyropoulos asked 15 speakers of Modern Greek about a number of sentences, including the following.

(74) Context: Kostas listens to Maria and Eleni talking about their sons. Someone asks him 'what they said about their sons' future plans and he responds:

i Maria ipe oti o jios tis tha spudhasi aglika
the Maria-NOM say-PST.3SG that the son-NOM her will study-3SG English
ke
and
i Eleni oti _____ tha spudhasi ispanika.
th=e Eleni-NOM that will study-3SG Spanish
Lit. 'Maria said that her son will study English and Eleni said that _____ (either Maria's or Eleni's son) will study Spanish.'

According to Vassilis Spyropoulos, just as with Chinese, the sloppy interpretation is possible, but only if the kind of context above is given. Without such a context, a sentence such as the above would be associated overwhelmingly with the strict interpretation. Note that Greek has subject agreement.

We saw earlier that Spanish, which has subject agreement, only allows strict interpretation for the null subject, but when an appropriate context is

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given—which is induced in part by a clitic, as Duguine (2014) noted—the sloppy interpretation becomes possible. Also, recall that Şener and Takahashi (2010) observed that the null subject position in Turkish only allows a strict reading. However, Simpson, Choudhury, and Menon (2013), who consulted six Turkish speakers, "found that there was considerable variation in judgment of the data, and no clear and consistent correspondence between the presence/absence of agreement and the availability of … sloppy interpretation" (118). When I consulted Turkish speakers at a conference in Istanbul, I also found that at least some speakers found it possible to get a sloppy interpretation of the subject *pro* even with agreement. What we have is the following, which is a new version of Oku's Generalization.

(75) The Agreement Condition
The presence of agreement on *pro* necessitates a rich context/construction for E-type pronoun interpretation.

What could be the source of this necessity? A hint is found in the recent work of Sato (2015a) on Chinese. Sato assumes that the null subject position in Chinese only allows a strict interpretation. He argues that this is due to the fact that the subject in Chinese is a topic. As noted earlier in the chapter, the Chinese subject usually cannot be an indefinite phrase.

(76) a. * Yi-ge/*yixie/*ji-ge ren zai yuenzi-li zuozhe.
one-CL/some/several-CL person at yard-LOC sit.CONTIN
'A man/some men/several men is/are sitting in the yard.'
b. You yi-ge/yixie/ji-ge ren zai yuenzi-li zuozhe.
exist one-CL/some/several-CL person at yard-LOC sit.CONTIN
'There is/are a man/some men/several men sitting in the yard.'
(Chou 2004, 194)

For an indefinite to occur in the subject position, it must occur after the existential *you* as we see in (76b). This is similar to the *there* construction in English.[17] Sato (2015a,b) argues that the null subject is a topicalized fully specified noun phrase that has been elided. As we argued earlier, contrary to Sato, I assume that for Chinese the subject null argument is a *pro*. For the sloppy interpretation, it is a *pro* that has been topicalized because it did not receive ϕ-features from its local T/AGR.

Let us use the idea that if the subject is a topic, including the *pro* that occurs in this position, it makes the sloppy interpretation difficult, requiring a rich context to induce this reading. How can we account for the Agreement Condition given above? Let us suppose that when there is agreement, the subject must move to Spec,TP from within the *v*P. Under Diesing's (1992) mapping

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hypothesis, specific elements occur higher in the structure than nonspecific elements, the former being topics, or something akin to topics, and being in a position higher than *v*P. The latter is a nontopic and presumably stays within the *v*P.

A nice demonstration of the effect of agreement and topichood is found in the agreement asymmetry in the northern Italian dialects Fiorentino and Trentino. In these dialects, verbs do not agree with postverbal subjects; the verb instead has the unmarked neutral form (3rd person masculine singular) (Brandi and Cordin 1989, 121–122; for Fiorentino, see also Saccon 1993).

(77) a. Gli è venuto delle ragazze. (F)
b. E' vegnú qualche putela. (T)
is come some girls
'Some girls have come.'

In contrast, full agreement must occur if the subject moves to the preverbal position (presumably Spec,TP) (Brandi and Cordin 1989, 113).

(78) a. La Maria la parla. (F)
b. La Maria la parla. (T)
the Mary she speaks
'Mary speaks.'

As in Chinese, the subject position in Italian is a topic position (see, e.g., Alexiadou and Anagnostopoulou 1998). One way to view the agreement asymmetry is to say that the presence of agreement is forcing the external argument to move to a topic position, which in this case is Spec,TP (Miyagawa 2010). On this account, a *pro* that has agreement must move, too, and move to a topic position. Once so moved, it has a specific reading, and the most natural interpretation is for it to be a standard, referential pronoun that seeks a direct antecedent in the sentence or in the discourse. It does not seek to be interpreted in an indirect way, which would be required of an E-type pronoun. However, a rich context may induce the E-type pronoun interpretation by encouraging an indirect interpretation from the information in the context.

If there is no agreement, *pro* stays in situ in Spec,*v*P. This is a position that commonly has a nonspecific element. As such, the *pro* need not be interpreted as a standard, referential pronoun, so that an E-type pronoun interpretation becomes readily available even without rich context. This is what we saw for Japanese.

A question that comes up for Japanese is: what about subject honorification? The subject honorification morphology, which appears with the verb, is an

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agreement with the subject (see, for example, Harada 1976, Shibatani 1977, Kishimoto 2012).

(79) Tanaka-sensei/*Taroo-ga hon-o o-kaki-ni-nar-u.
Tanaka-Prof./Taro-NOM book-ACC SH-write-SH-PRS
'Prof. Tanaka/Taro will write a book.'

As shown, the occurrence of subject honorification is sensitive to the kind of noun phrase that is in the subject position. This may suggest that the sloppy interpretation becomes difficult under subject honorification. However, this is not the case.

(80) a. Taroo-wa [zibun-no sensei-ga eigo-o zyoozu-ni
Taro-TOP self-GEN teacher-NOM English-ACC well
o-hanasi-ni-naru to] itta.
SH-speak-SH-PRS C said
'Taro said that self's teacher speaks English well.'
b. Ziroo-wa [____ Girisyago-o zyoozu-ni o-hanasi-ni-naru to] itta.
Jiro-TOP Greek-ACC well SH-speak-SH-PRS C said
'Jiro said that ___ speaks Greek well.'

The sloppy interpretation is perfectly possible. Is this a counterexample to the Agreement Condition? On the contrary, Kishimoto (2006) notices that subject honorification may occur in *-kata* 'way' nominals.

(81) Suzuki-sensei-no o-hanasi-ni-nari-kata
Prof. Suzuki-GEN SH-speak-SH-way
'the way that Professor Suzuki speaks'

Kishimoto argues that the *-kata* nominalization applies to *v*P because while an external argument can appear in this construction, tense can never occur. The verbal form is a nominalized infinitive-like inflection. From this, we can conclude that subject honorification applies at the *v*P level, not the TP level as assumed in the earlier literature (see also Miyagawa 2012b). Hence, it is not an exception to the Agreement Condition.

3.6 Large-Scale Survey of Chinese and Japanese Speakers for Sloppy Interpretation

Oku (1998) first noted that the sloppy reading is possible for a null subject argument in Japanese. Accepting the idea from Otani and Whitman (1991) (see Huang 1987, 1989, 1991 for a relevant earlier study in Chinese) that this "indefinite" meaning of the null argument excludes the gap as a *pro*, Oku

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suggested that the null subject argument in Japanese results from argument ellipsis when the null argument has the sloppy reading. This has become the dominant assumption in Japanese and has led to a number of important studies (e.g., Saito 2007; Takahashi 2008a,b, 2013; Şener and Takahashi 2010). Takahashi (2008a) has carried this study over to other languages and, in particular, suggested that the null subject argument in Chinese behaves differently from Japanese in not allowing the sloppy reading, leading him to conclude that the subject position in Chinese has agreement despite no overt manifestation of any agreement morphology. I argued for a similar analysis for Chinese based on blocking effects (Miyagawa 2010). However, over the years, I have informally consulted with a large number of Chinese speakers, and, surprisingly, a small portion of the speakers reported that they could get the sloppy interpretation. I obtained similar results from Turkish speakers; Şener and Takahashi (2010) report that the Turkish null subject position does not allow the sloppy interpretation. Unlike Chinese, Turkish has overt agreement, so, by Oku's Generalization, this is not surprising. Yet a portion of the speakers reported that they could get the sloppy interpretation.

In order to ascertain the conditions under which the sloppy interpretation of the null subject argument is possible, we carried out a large-scale survey of Chinese and Japanese speakers. I will first discuss the Japanese study.

3.6.1 Japanese Study

A large number of sentences were created with assistance from the students taking advanced syntax at the International Christian University (Tokyo) in the spring of 2015. After informal testing, we chose the following test sentences for the survey, which was conducted among undergraduate students in introductory linguistics classes at Akita University, Tohoku University, and Osaka University. Thanks to Yukiko Ueda, Masa Koizumi, and Masao Ochi for conducting the survey. A total of 100 subjects were asked to participate in the survey. After a brief practice, the subjects were asked to choose the meaning of the null subject argument from (a) or (b), including the possibility of both. Everything was presented in the native orthography. Answer (a) corresponds to the strict reading while answer (b) reflects the sloppy reading. Along with these sentences, a number of fillers were created that only had the possibility of a strict reading. An example of such a filler sentence is given after the test sentences.

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Test sentences ("JT" stands for Japanese Test)

JT-1. Oziisan-wa, zibun-no asagohan-ga pan-da to ii to itteiru.
Grandpa-TOP self-GEN breakfast-NOM bread-COP COMP good that said
'Grandpa said that it would be good if self's breakfast is bread.'
Obaasan-wa, _____ okayu-da to ii to itteiru.
Grandma-TOP porridge-COP COMP good that said
'Grandma said that it would be good if _____ is porridge.'
a. Grandpa's breakfast 68/100 (68%)
b. Grandma's breakfast 86/100 (86%)

JT-2. Taroo-wa, zibun-no tesuto-no kekka-ga taihen yokatta to omotteiru.
Taro-TOP self-GEN test-GEN score-NOM very good that thinks
'Taro thinks that self's test score was very good.'
Yuko-wa, _____ maamaa-datta to omotteiru.
Yuko-TOP so-so-COP.PST that thinks
'Yuko thinks that _____ was so-so.'
a. Taro's test score 65/100 (65%)
b. Yuko's test score 91/100 (91%)

JT-3. Suzuki-san-wa, zibun-no te-ga ookii to omotteiru.
Suzuki-TOP self-GEN hand-NOM big that thinks
'Ms. Suzuki thinks self's hand is big.'
Tanaka-san-wa, _____ tiisai to omotteiru.
Tanaka-TOP small that thinks
'Ms. Tanaka thinks ____ is small.'
a. Ms. Suzuki's hand 71/100 (71%)
b. Ms. Tanaka's hand 81/100 (81%)

JT-4. Shirota-san-wa, zibun-no haizokusaki-ga Ootaku-da to
Shirota-TOP self-GEN assigned location-NOM Ota Ward-COP that
omotteiru.
think
'Mr. Shirota thinks that self's assigned location is Ota Ward.'
Takahara-san-wa, _____ Suginamiku-da to omotteiru.
Takahara-TOP Suginami Ward-COP that thinks
'Mr. Takahara thinks _____ is Suginami Ward.'
a. Mr. Shirota's assigned location 86/100 (86%)
b. Mr. Takahara's assigned location 92/100 (92%)

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JT-5. Masao-wa, zibun-ga myuzisyan-to-site katuyaku-dekiru to omotteiru.
Masao-TOP self-NOM musician-as successful at that thinks
'Masao thinks that self can be successful as a musician.'
Kenta-wa _____ kentikuka-to-site katuyaku-dekiru to omotteiru.
Kenta-TOP architect-as be successful that thinks
'Kenta thinks that _____can be successful as an architect.'
a. Masao 86/100 (86%)
b. Kento 80/100 (80%)

Example of a filler:

JT-6 Titioya-wa, siriai-no katta koukyuusya-ga kakko-ii to
father-TOP friend-GEN bought luxury car-NOM cool-looking that
omotteiru.
thinks
'The father thinks that the luxury car that a friend bought is
cool-looking.'
Musuko-wa, _____ kakko-warui to omotteiru.
son-TOP unattractive that thinks
'The son thinks that ____ is unattractive.'
a. the car that a friend bought 95/100 (95%)
b. the car that the son bought 8/100 (8%)

These sentences were presented without any context, a point that becomes important when we look at the Chinese study. The percentage of subjects who found the sloppy interpretation possible ranged from 80% to 92%. This shows that Japanese speakers found it relatively easy to interpret the null subject argument with the sloppy interpretation without any special context given. As we see in the example of the filler, for which the sloppy interpretation is extremely difficult, only 8% thought that they could interpret it with this reading. It is not clear whether these subjects perceived that the sloppy interpretation was actually possible or they simply failed to understand the nature of the task. For the strict reading of the test sentences, the percentage of those who marked it as possible ranged from 65% to 86%, indicating a slight favoring of the sloppy over the strict interpretation. For the filler, 95% indicated that they got the strict reading. In sum, without context Japanese speakers were able to interpret the null subject argument with the sloppy interpretation.

This means that in Japanese, the subject *pro* is not the target of agreement, and being a strong pronoun, it need not move to acquire a referential index. We can reasonably assume, then, that *pro* stays in situ in *v*P, where it can easily take on an indefinite reading, much like the post verbal subject in Italian.

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3.6.2 Chinese Study

The sentences in the Japanese examples were translated into Chinese, and adjustments made to make them as natural as possible. The fifth sentence was deemed inappropriate for the test and a new sentence was created in its place. The Chinese test, which was created by Lulu Zhang and administered online, had two practice sentences followed by two test parts. In Part 1, the five examples were presented without any context, and as in the Japanese test, the subjects were asked to check the answers corresponding to strict and sloppy readings. Along with the five test sentences, five fillers were included. In Part 2, the same sentences were presented, but with a context that encouraged sloppy interpretation; the Japanese test did not have this second part. Again there were five fillers. All examples were presented in the Chinese orthography. A total of 141 subjects participated in the survey. Following are the two parts.

Part 1. Sentences without context

CT-1. Yeye shuo ziji-de zaocan shi mianbao.
Grandpa say self's breakfast is bread
'Grandpa said that self's breakfast is bread.'
Nainai shuo shi zhou.
Grandma say is porridge
'Grandma said ____ is porridge.'
Question: Whose breakfast did Grandma say is porridge?'
A. Grandpa's breakfast 80/141 (56.7%)
B. Grandma's breakfast 37/141 (26.2%)

CT-2. Xiao Ming renwei ziji-de kaoshi chengji feichang hao.
Xiao Ming think self's test score very good
'Xiao Ming thinks that self's test score was very good.'
Xiao Wei renwei yibanban.
Xiao Wei think so-so
'Xiao Wei thinks that _____ was so-so.'
Question: Whose test score does Xiao Wei think is just so-so?
A. Xiao Ming's test score 98/141 (69.5%)
B. Xiao Wei's test score 25/141 (17.7%)

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CT-3. Xiao Hong juede ziji-de shou hen da.
Xiao Hong think self's hand very big
'Xiao Hong thinks self's hand is big.'
Xiao Li juede hen xiao.
Xiao Li think very small
'Xiao Li thinks ____ is small.'
Question: Whose hand does Xiao Li think is small?

A. Xiao Hong's hand 109/141 (77.3%)
B. Xiao Li's hand 23/141 (16.3%)

CT-4. Li xiansheng shuo ziji bei fenpeidao de didian shi
Mr. Li say self PASS allocated DE location is
Haidianqu fengongsi.
Haidian District branch
'Mr. Li said that self's assigned location is Haidian District branch.'
Wang xiansheng shuo shi Dongchengqu fengongsi.
Mr. Wang say is Dongcheng District branch.
'Mr. Wang said _____ is Dongcheng District branch.'
Question: Who is assigned to Dongcheng District branch, according to Mr. Wang?
A. Mr. Li 107/141 (72.3%)
B. Mr. Wang 23/141 (16.3%)

CT-5. Zhang laoshi juede ziji-de xuesheng hen youlimao.
Zhang teacher think self's student very polite
'Teacher Zhang thinks that self's student is polite.'
Li laoshi juede hen mei limao.
Li teacher think very not polite
'Teacher Li thinks ____ is very impolite.'
Question: Whose student does Teacher Li think is impolite?
A. Teacher Zhang's student 123/141 (87.2%)
B. Teacher Li's student 11/141 (7.8%)

Part 2. Sentences with context

CT-6. Context: Grandpa and Grandma are saying what they think breakfast will be.
Yeye shuo ziji-de zaocan shi mianbao.
Grandpa say self's breakfast is bread
'Grandpa said that self's breakfast is bread.'

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Nainai shuo shi zhou.
Grandma say is porridge
'Grandma said ____ is porridge.'
Question: Whose breakfast did Grandma say is porridge?
A. Grandpa's breakfast 46/141 (32%)
B. Grandma's breakfast 67/141 (47.5%)

CT-7. Context: Xiao Ming and Xiao Wei just saw their test scores. They expressed their opinions on their scores.
Xiao Ming renwei ziji-de kaoshi chengji feichang hao.
Xiao Ming think self's test score very good
'Xiao Ming thinks that self's test score was very good.'
Xiao Wei renwei yibanban.
Xiao Wei think so-so
'Xiao Wei thinks that _____ was so-so.'
Question: Whose test score does Xiao Wei think is just so-so?
A. Xiao Ming's test score 30/141 (21.3%)
B. Xiao Wei's test score 95/141 (67.3%)

CT-8. Context: Xiao Hong and Xiao Li are expressing their opinions about their hands.
Xiao Hong juede ziji-de shou hen da.
Xiao Hong think self's hand very big
'Xiao Hong thinks self's hand is big.'
Xiao Li juede hen xiao.
Xiao Li think very small
'Xiao Li thinks ____ is small.'
Question: Whose hand does Xiao Li think is small?
A. Xiao Hong's hand 31/141 (22%)
B. Xiao Li's hand 93/141 (66%)

CT-9. Context: Mr. Li and Mr. Wang are new employees of a company. The company has just released the document showing the assigned branches of all the new employees.
Li xiansheng shuo ziji bei fenpeidao de didian shi
Mr. Li say self PASS allocated DE location is
Haidianqu fengongsi.
Haidian District branch
'Mr. Li said that the self's assigned location is Haidian District branch.'

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Wang xiansheng shuo shi Dongchengqu fengongsi.
Mr. Wang say is Dongcheng District branch
'Mr. Wang said _____ is Dongcheng District branch.'
Question: Who is assigned to Dongcheng District branch, according to Mr. Wang?
A. Mr. Li 36/141 (25.5%)
B. Mr. Wang 91/141 (64.5%)

CT-10. Context: Teacher Zhang and Teacher Li are talking about their opinions on whether their students are polite or not.
Zhang laoshi juede ziji-de xuesheng hen youlimao.
Zhang teacher think self's student very polite
'Teacher Zhang thinks that self's student is polite.'
Li laoshi juede hen mei limao.
Li teacher think very not polite
'Teacher Li thinks ____ is very impolite.'
Question: Whose student does Teacher Li think is impolite?
A. Teacher Zhang's student 37/141 (26.2%)
B. Teacher Li's student 78/141 (55.3%)

Without context, the percentage of those who were able to perceive the sloppy interpretation ranged from 7.87% to 26.23%. Compare this to the Japanese counterparts, whose percentages ranged from 80% to 92%. Once a context was given to encourage a sloppy interpretation, the percentage increased to range from 47.5% to 67.3%. This is still lower than the percentage for the Japanese examples, indicating that even with a context that favors the sloppy interpretation, the null subject argument in Chinese is not readily associated with this reading. This is consistent with our argument that the subject *pro* in Chinese that refers to an entity outside of its sentence is a topic. As such it looks for a specific reference in the sentence or the discourse, which renders the sloppy interpretation difficult without context to induce it.

3.7 Anaphoric Binding in Japanese and POV

In this final section of the chapter, let us return to Japanese, which has agreement at C, but the agreement is directed to the "addressee" in the higher structure as allocutive agreement. Because the subject is not the target of agreement, we predict that there should be no blocking effect triggered by agreement, and this is what we see (Miyagawa 2010).

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(82) Taroo/watakusi/anata-wa [Taroo/watakusi/anata-ga zibun-no
Taro/I/you-TOP Taro/I/you-NOM self-GEN
syasin-o totta to] itta.
picture-ACC take C said
'Taro/I/you said that Taro/I/you took self's picture.'

Setting aside a certain pragmatic awkwardness with some of the interpretations, it is possible in principle for the anaphor to refer to the subordinate or matrix subject in any combination.

Does this mean that there are no restrictions on the *zibun* anaphor in Japanese other than the well-known subject orientation? There is one well-known restriction imposed on *zibun* construal, which we see in a number of long-distance anaphors across languages. In long-distance construal, *zibun* has been shown to be coreferent with the *subject of consciousness* (Koster and Reuland 1991, Pollard and Sag 1992, Kuroda 1973, Kuno 1972, Kuno and Kaburaki 1977, Iida 1996). Kuno (1973, 322) gives the following description.

(83) *Zibun* in a constituent clause [= a subordinate clause] (A) is coreferential with a noun phrase (B) of the matrix sentence only if A represents an action or state that the referent of B is aware of at the time it takes place or has come to be aware of at some later point.

The following pair of examples illustrates Kuno's point (the examples are quoted from Nishigauchi 2014).

(84) Iinkai-ga zibuni-o erab-i soo ni nat-ta toki, Takasii-wa
committee-NOM self-ACC elect likely become-PST when Takashi-TOP
huan-ni nat-ta.
worried become-PST
'When it came to be likely that the committee might elect self, Takashi became anxious.'

(85) * Iinkai-ga zibuni-o erab-i soo ni nat-ta toki, Takasii-wa
committee-NOM self-ACC elect likely become-PST when Takashi-TOP
gussuri nemut-tei-ta.
fast asleep-be-PST
'When it came to be likely that the committee might elect self, Takashi was fast asleep.'

The idea of consciousness is a pragmatic one (Speas 2004), hence it is part of the discourse context of the utterance. Speas (2004) and Tenny (2006) among others propose that this type of pragmatic effect is encoded in what they call Point of View (POV), which, despite its pragmatic function, finds

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representation in the syntactic structure. Speas (2004) proposes that there is a *pro* in the Spec position of POV. In his study of *zibun* binding, Nishigauchi (2014) adopts Speas's idea; on this approach, we can represent (84)/(85) schematically as follows (Nishigauchi's work does not specifically include the POV CONSCIOUSNESS so I am adding it to his analysis).

(86) [[pro_i [… zibun$_i$ …] CONSCIOUSNESS] [Takashi$_i$ …]]

Nishigauchi argues that the antecedent of *zibun* is mediated by *pro*; in this case, *zibun* ultimately takes *Takasii* as its antecedent, but *Takasii* must be coindexed with *pro* for this to happen. Because *pro* is the subject of CONSCIOUSNESS, *Takasii* must be interpretable as being conscious of the event represented in the clause containing *zibun*. (84) is fine, but in (85) Takashi is asleep and fails to qualify as the "conscious" antecedent of *pro.*

Japanese is a language with a rich set of POV markers. In certain instances, one POV marker can override another. In contrast to the unacceptable (85) above, Nishigauchi (2014) notes the following.

(87) Iinkai-ga zibuni-o eran-de kure-ta toki,
committee-NOM self-ACC elected do favor-PST when
Takasii-wa gussuri nemut-te i-ta.
Takashi-TOP fast asleep-be-NOM
'When the committee did the favor of electing self, Takashi was fast asleep.'

The auxiliary verb *kure-ru* 'do favor' has the meaning of benefactive, and this POV is directed at the local domain in which *zibun* occurs. As a result, this benefactive POV on the local domain over rides the CONSCIOUSNESS requirement otherwise imposed on the long-distance antecedent, and *zibun* is free to have *Takasii* as the antecedent through *pro* even though Takashi was asleep at the time of the event of being elected. The structure would be along the lines of the following.

(88) [[pro_i [… zibun$_i$ …] BENEFACTIVE] [Takasii$_i$ …]]

Where do these POV elements occur? Nishigauchi (2014) apparently thinks that they are at the TP level. For example, he gives the following structure.

(89) [$_{POVP}$ α_i [$_{VP}$ … zibun$_i$ …V] POV]

The α element is in the Spec of POV, and it is the antecedent of *zibun*; Nishigauchi notes that this α is the subject of the sentence if the subject is the antecedent of *zibun* (159), which indicates that the POV and its Spec are at the TP level. Is this the right analysis? Speas (2004), on whose work Nishigauchi bases his analysis, builds on Cinque (1999). Cinque suggests that there are projections above the sentence (= TP).

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(90) Cinque's (1999) four highest projections

Speech Act Mood: indicates type of speech act (declarative, interrogative, etc.)
Evaluative Mood: indicates speaker's evaluation of the reported event or state as good, lucky, bad, surprising, etc.)
Evidential Mood: indicates nature of speaker's evidence for truth of proposition
Epistemological Mode: indicates speaker's degree of certainty about the proposition

Following Cinque, Speas suggests that these POV projections occur above the TP (she calls it "IP"; 264). The evaluative POV, which would cover the two POV elements we have discussed, CONSCIOUSNESS and BENEFACTIVE, has the following structure.

(91) $[_{CP}$ *pro* $[_{TP} \ldots]$ $C_{POV}]$

This makes POV equivalent to the grammatical features, the ϕ-features and δ-features.

On this account it is not surprising that POV sometimes resembles agreement. For example, as described by Speas (269–270), Akha has person agreement that depends on whether the sentence is a statement or a question (Thurgood 1986). The morpheme *-è* on the verb goes with a 1st person subject in a statement and with a 2nd person subject in a question.

(92) a. ŋa nc-áŋ dì-è.
I you-OBJ hit-è
'I hit you.'
b. ŋc nà-á ŋ dì-è-ló?
you me-OBJ hit-è-Q
'Will you beat me?'

Speas notes the comment by Dick Hudson (Maxwell 1999) that "these morphemes could be described as agreement with the source of information or authority which is the speaker in a statement and the hearer in a question" (Speas 2004, 269). Thus, the POV marking of Epistemological Mode functions like person agreement.

The structure in (91) works for long-distance construal of *zibun,* but what about the case of local binding? The structure in (91) would not be appropriate since it would cause a Condition C violation with *pro* being coreferential with the subject that it c-commands. Saito (2006) argues that the subjecthood relevant to *zibun* binding is Spec,*v*P, not Spec,TP. On this account, the requirement imposed by the POV relevant to *zibun* must occur at the *v*P level.

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(93) [$_{vP}$ SUBJECT [$_{VP}$ …] v_{POV}]

We can test this using *-kata* nominalization, which Kishimoto (2006) argues is a nominalization of *v*P. First, we can see that *zibun* may occur in this nominalization.

(94) Taroo-no zibun-no home-kata
Taro-GEN self-GEN praise-way
'the way Taro praises himself'

Second, we can see that the POV of CONSCIOUSNESS applies even in this nominalization.

(95) * nete-iru gakusei-no, zibun-no sensei-ni-yotte-no hihans-are-kata
sleeping student-GEN self-GEN teacher-by-GEN criticize-PASS-PST
'the way that the sleeping student was criticized by self's teacher'

This nominal is fine if the subject is awake and conscious of the event, as shown below.

(96) gakusei-no, zibun-no sensei-ni-yotte-no hihans-are-kata
student-GEN self-GEN teacher-by-GEN criticize-PASS-PST
'the way that the student was criticized by self's teacher'

3.8 Conclusion

In this chapter we looked at a phenomenon commonly referred to as pro-drop. It was Huang (1987, 1991) and Otani and Whitman (1991) who showed that not all instances of pro-drop are the same. They noted that the possibility of a sloppy interpretation suggests some sort of ellipsis. Oku (1998), picking up on this theme, argued that the sloppy interpretation results from argument ellipsis, which is possible for arguments that are not the target of agreement. Duguine (2014) gave counterexamples to Oku's observation, showing that a *pro* that is the target of agreement can have the sloppy interpretation. Duguine concluded that all null arguments that have been identified as *pro* are the result of argument ellipsis. There is no *pro*. I argued, based on Oikonomou (to appear), that Duguine's pursuit of a unified analysis is correct, but instead of saying that all instances of null arguments are the result of argument ellipsis, I argued that all instances of pro-drop are just that: the gap is a *pro*. The possibility of the sloppy interpretation is due to an E-type pronoun reading. Why is this reading sometimes not available? I showed that a *pro* that is a topic is difficult to interpret with the sloppy interpretation simply because a topic *pro* is seeking a specific/definite reference. To induce the sloppy interpretation, an appropriate context must be provided. What is the relation between *pro* and

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agreement, and the inability to interpret it with the sloppy interpretation? I suggested that agreement leads to *pro* being topicalized, something we see in Romance. What about Chinese, which Takahashi (2008a) argued has overt agreement, with the result that the subject *pro* does not get associated with the sloppy interpretation? In support of Takahashi, I gave evidence that Chinese indeed has ϕ-feature agreement. Ironically, the Chinese subject *pro* is difficult to interpret with the sloppy interpretation when it is not associated with the ϕ-feature. Rather, the Chinese *pro*, when it can refer out of the sentence—which is the environment for the sloppy interpretation—has been topicalized because it was not able to get the ϕ-feature from its local T/AGR. Hence, the most fundamental issue for whether the sloppy interpretation is possible or not is topicalization as far as *pro* is concerned. This, in turn, is due to the fact that the sloppy interpretation is an instance of E-type pronoun interpretation, which is not so easy to implement under topicalization. To sum up, across languages, the topicalization of *pro* discourages its interpretation as an E-type pronoun, which in turn makes the sloppy interpretation difficult. In Chinese, the topicalization of the subject *pro* occurs when *pro* does not get ϕ-features from its local T/AGR, but in Romance and other agreement languages, *pro* is topicalized as part of the agreement/movement property of the language.

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4 On the Distribution and Structure of 'Why'

4.1 Introduction

The adjunct *wh*-phrase 'why' has a variety of distributions across languages. In Spanish *por qué* 'why' occurs in Spec,CP, either having moved there or been merged directly into that position (Ochi 2014).[1]

(1) a. Por qué miró Juan a Maria?
why looked at Juan A Maria
'Why did Juan look at/watch Maria?'
b. Por qué Juan miró a Maria?
why Juan looked at A Maria
'Why did Juan look at/watch Maria?'

(2) a. Qué vio Juan?
what saw Juan
'What did Juan see?'
b. *Qué Juan vio?
what Juan saw
'What did Juan see?'

In (1a) *por qué* has moved into Spec,CP, as indicated by the Aux inversion, while in (1b) *por qué* has apparently been directly put into this position, which is suggested by the absence of Aux inversion. As shown in (2b), for an argument *wh*-phrase such as *qué* 'what', Aux inversion must take place, indicating that argument *wh*-phrases always begin in their expected position within the TP and move to Spec,CP by *wh*-movement. Further evidence for the movement/non-movement of *por qué* is shown below (Uriagereka 1988, Boeckx 2008, Ochi 2014).

(3) a. **Por qué** pensaste tú que Juan vio a Maria? (ambiguous)
why thought you that Juan saw A Maria
'Why did you think that Juan saw Maria?'

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b. **Por qué** tú pensaste que Juan vio a Maria? (unambiguous)
why you thought that Juan saw A Maria
'Why did you think that Juan saw Maria?'

In (3a) the scope of *por qué* is ambiguous between the matrix and subordinate clauses, while it only has matrix scope in (3b). These observations are consistent with the fact that in (3a) *por qué* has undergone movement to the matrix Spec,CP as indicated by the Aux inversion, and the movement could have been initiated in the matrix or the subordinate clause. In (3b), the absence of Aux inversion suggests that *por qué* has been directly inserted into the Spec,CP without having moved there, hence there is no Aux inversion, and there is no possibility of *por qué* taking subordinate-clause scope.

Based on these observations, Ochi (2014) proposes the following.

(4) Distribution of 'why'
(i) Reason *wh*-adjuncts (e.g., *por qué*, *why, weishenme, naze*) are base generated in the CP periphery or elsewhere (i.e., within TP).
(ii) Causal *wh*-adjuncts fall into the following two groups:
a. Many of them (e.g., *how come, why the hell, zenme* (Chinese), and so on) are always base generated in the left periphery of an interrogative CP.
b. A species of causal *wh*-adjuncts in Chinese and Japanese is a V′-level adjunct.

For (4i), we saw that *por qué* may be base generated in Spec,CP or moved there from somewhere lower in the structure. For (4iia), Collins (1991) has observed that *how come* in English is always base generated in the Spec,CP where it takes its scope.

(5) a. How come you left?
b. *How come did you leave?
c. How come John said Mary left?

How come never triggers Aux inversion, as shown in (5b), and like *por qué* inserted directly into Spec,CP where it takes scope. *How come* can only take scope in the clause where it occurs. Hence, (5c) is unambiguous. Finally, (4iib) refers to constructions like the following, in which *nani* 'what' is used as an adjunct to mean 'why' (e.g., Kurafuji 1996, 1997; Ochi 1999, 2004).

(6) Hanako-wa nani-o hasit-te iru no?
Hanako-TOP what-ACC run-ing Q
'Why is Hanako running?'

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I will go over this and other types of 'why' in this chapter. I will also address the difference in meaning between "reason" and "cause," which turns out to be crucial for the structural analysis of (i) and (ii).

4.2 'Why' as a Base-Generated *Wh*-Adjunct

The idea that 'why' may be base generated in the Spec,CP where it takes scope has been proposed by a number of linguists going back to Rizzi (e.g., Rizzi 1990, 2001; Ko 2005; Stepanov and Tsai 2008). This idea is predated by a proposal of the same kind by the philosopher Bromberger (1987, revised in 1992). We saw that *how come* is a base-generated *wh*-adjunct. In Chinese, *zenme* 'how come' has the same base-generated property. Tsai (2008) points out that *zenme* cannot be placed in a lower clause with the intent of covertly moving to the matrix Spec,CP, as other *wh*-phrases can.

(7) *Akiu renwei [Xiaodi zenme hui chiuli zhe-jian shi]?
Akiu think Xiaodi how will handle this-CL matter
'How come Akiu thinks Xiaodi will handle this matter *t*?'

If, instead of *zenme*, we use the "regular" 'why' phrase *weishenme*, this sentence will be grammatical with the intended reading of 'Why does Akiu think that Xiaodi will handle this matter *t*'.

4.2.1 A Gap in the Paradigm

There is an interesting gap in the paradigm for Japanese. Contrary to Ochi's (2014) claim that the Japanese 'why' *naze* may be base generated in Spec,CP, there is no evidence for this. One piece of putative evidence given in the literature for this is the observation that *naze* can overcome an intervention effect (Miyagawa 1997b, Ko 2005).

(8) a. *Hanako-sika dare-ni erab-are-nakat-ta no?
Hanako-only who-by choose-PASS-NEG-PST Q
'By whom was only Hanako chosen?'
b. Hanako-sika naze erab-are-nakat-ta no?
Hanako-only why choose-PASS-NEG-PST Q
'Why was only Hanako chosen?'

Ko (2005), following Bromberger (1987, 1992) and Rizzi (1990), argues that *naze* is base generated in Spec,CP, so it does not need to move to take scope, thus it is not subject to the intervention effect that *wh*-phrases that must move to Spec,CP face, as we see in (8b). By her account, anything that occurs to the left of *naze* has moved there by scrambling. She in fact shows

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that only languages that have robust scrambling, such as Japanese and Korean, but not Chinese, have this "anti-intervention" effect for 'why'. Later, I will develop an analysis of *naze* in the spirit of Ko, but without assuming that *naze* is base generated in Spec,CP.

As I will show later, the anti-intervention effect of *naze* is not an indication that *naze* is base generated in Spec,CP. We will in fact see that *naze* is base generated lower than CP, sometimes as low as inside the *v*P. Japanese does not have anything like the Chinese *zenme* 'how come' or the English *how come* that must be base generated in the Spec,CP where it takes scope. Although Ochi lists *naze* as having the potential to be base generated, he gives no evidence for it.

In the absence of evidence for base generation of *naze*, I will assume that *naze* is always merged somewhere lower than CP, and takes scope at Spec,CP by moving there. I will discuss the mechanics of this later, but for now, let us reflect on why there is this apparent gap in Japanese. English has *how come*, Chinese has *zenme*, and Spanish has *por qué*, all either obligatorily inserted into Spec,CP where they take scope (*how come, zenme*) or with an option to do so (*por qué*). Recall the typology of languages based on Strong Uniformity.

(7) Some predicted languages based on Strong Uniformity
Category I: C_{ϕ}, T_{δ} – Japanese, Korean
Category II: C_{δ}, T_{ϕ} – Chinese, English
Category III: C, $T_{\phi/\delta}$ – Spanish
Category IV: $C_{\phi/\delta}$, T – Dinka

In Category II and IV languages, the δ-feature stays at C. In Category III, the δ-feature may lower to T; this is for Spanish, and the evidence for this lowering we saw is the δ-feature of topic.

In Miyagawa (2010) I argued, following other linguists (e.g., Rizzi 1997), that focus is a key feature in *wh*-constructions. A *wh*-phrase undergoes movement because of its focus feature and the δ-feature of focus at C. It makes sense, then, that in English and Chinese, Category II languages, we find adjunct *wh*-phrases such as *how come* and *zenme*; they can be directly inserted into Spec,CP to check off the focus feature. What about Spanish? The argument that the δ-feature may be inherited by T is based on topicalization (Jiménez-Fernández 2010). There is no evidence that the focus δ-feature lowers to T in Spanish. In fact, given that it is a *wh*-movement language, in which *wh*-phrases move to Spec,CP, the evidence indicates that in Spanish, the focus δ-feature stays at C. Thus Spanish, a Category III language at least for the topic δ-feature, has its focus δ-feature at C and *por qué* can be inserted

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directly at Spec,CP to check the focus feature. Finally, Strong Uniformity predicts that Category I languages such as Japanese and Korean would never have a base-generated 'why'.

In the remainder of this chapter, I will look at *naze* in Japanese, making comparisons to Chinese at several points. I will also look at the use of *nani* 'what' as 'why'. This use of 'what' in languages such as German is limited to base generation in Spec,CP (Ochi 1999).

(8) a. Warum glaubst du dass er so lange schläft? (ambiguous)
why believe you that he so long sleeps
'Why do you believe that he sleeps so long?'
b. Was glaubst du dass er so lange schläft? (unambiguous)
what believe you that he so long sleeps
'Why (the hell) do you believe that he sleeps so long?'

One finds this use in Japanese, but as a number of linguists have pointed out, *nani* 'what' in this construction occurs low in the structure, somewhere within the verbal projection. We don't find it base generated in Spec,CP as we see in German.

There is one point I should make about focus and 'why'. Our proposal is that the gap in the paradigm in Japanese—the absence of 'why'-type expressions externally merged at the C region—has to do with Strong Uniformity. Since Japanese is a Category I language, the δ-feature at C is inherited by T; the feature relevant to our discussion is focus, which has been argued to play a role in *wh*-constructions. Rizzi (1999) has observed that focus is relevant to all *wh*-phrases save one: the 'why' *wh*-phrase does not appear to be associated with focus. Hence, in his system, 'why' occurs in IntP instead of FocP, where the other *wh*-phrases occur. However, there is evidence from Portuguese that when 'why' is externally merged to the Spec,CP where it takes scope, this involves focus.

In European Portuguese, an argument *wh*-phrase that has been moved to Spec,CP cannot carry focus stress.[2]

(9) a. O que leste?
what (you) read
'What did you read?'
b. *O quê leste?

The difference is between *o que* in (9a) and *o quê* in (9b). There is no focus stress in the former and a focus stress in the latter, and only the unfocused 'what' is grammatical. For 'why', both the unstressed and stressed versions are possible.

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(10) a. Porque veio o João?
why came João
'Why did João come?'
b. Porquê o João veio?
why João came
'Why did João come?'

In (10a), the unstressed 'why' is accompanied by verb inversion, signaling that *porque* has moved to Spec,CP, just as we saw for Spanish. In (10b), 'why' is focus stressed and there is no inversion, indicating that this stressed 'why' has externally merged into Spec,CP. This suggests that externally merged 'why' targets focus just like the other *wh*-phrases. Furthermore, there is a scope difference between the unfocused and focused 'why'.

(11) Porque é que disseste que o João veio para Boston?
why say that João came to Boston
'Why (unstressed) did you say that João came to Boston?'
Ambiguous:
a. Porque tu querias saber.
'Because you wanted to know.'
b. Porque foi estudar para o MIT.
'Because he went to study at MIT.'

(12) Porquê disseste que o João veio para Boston?
why said that João came to Boston
'Why (stressed) did you say that João came to Boston?'
Unambiguous:
a. Porque tu querias saber.
'Because you wanted to know.'
b. #Porque foi estudar para o MIT.
'Because he went to study at MIT.'

Only the unfocused 'why' leads to ambiguity of scope, which indicates that the focus-stressed 'why' is externally merged at the matrix Spec,CP and only takes scope there, as we saw from Spanish. Based on these pieces of evidence from European Portuguese, I will assume that the external-merge option for 'why' exists only for languages that have the focus δ-feature at C, leading to the prediction that in Class I languages (Japanese, Korean), the external-merge option is not available.[3] Later in the chapter, I will give an additional piece of evidence that 'why' with focus stress is associated with the focus feature. Below, I will develop an analysis of 'why' based on Shlonsky and Soare (2011) and Beck (1995, 1996b) in order to capture the distribution of 'why' across languages relative to the external-merge option.

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4.3 Three Observations about *Naze* 'Why'

Linguists have observed a number of unusual properties associated with the Japanese *wh*-word *naze* 'why'. I will take up three of these properties. The first is referred to in the literature as *anti-superiority*; I will call the other two *anti-intervention* and *anti-pied-piping*. I will demonstrate that these three peculiar properties observed for *naze* point to general properties of 'why' across languages, even those languages where these properties have not been isolated as topics of research. To account for these properties, I will propose a structure for 'why' that combines and extends the work in Shlonsky and Soare (2011) and Beck (1995, 1996b).

The first property, anti-superiority, observed by Saito (1982, 1985), requires that, in a multiple *wh*-question that contains *naze* 'why', this *wh*-word is not the first *wh*-phrase in the question.

Anti-superiority (Saito 1982, 1985): ✓*wh naze*, ??*naze wh*

(13) a. Taroo-wa nani-o naze katta no?
Taro-TOP what-ACC why bought Q
'Why did Taro buy what?'

b. ??Taroo-wa naze nani-o katta no?
Taro-TOP why what-ACC bought Q
'Why did Taro buy what?'

As shown in (13b), the sentence degrades if *naze* is the first *wh*-phrase. This is called anti-superiority, reflecting the fact that *naze* appears to violate the otherwise strict superiority requirement that has the higher quantificational element at overt syntax always taking scope over the lower element. This strict requirement is demonstrated extensively in Hoji (1985). Because *naze* is an adjunct *wh*-phrase, it must raise to Spec,CP first (e.g., Chomsky 1981, Lasnik and Saito 1984). Yet, as we see above, *naze* must occur lower than the other *wh*-phrase, thus ostensibly violating superiority. The anti-superiority violation in (13b) can be saved by inserting a third *wh*-phrase to the left of *naze* (Saito 1994; see also A. Watanabe 1992; S. Watanabe 1994, 1995, 2000).

(14) Additional-*wh* effect
Dare-ga naze nani-o katta no?
who-NOM why what-ACC bought Q
'Why did who buy what?'

This is consistent with the anti-superiority property of *naze*: it cannot be the first *wh*-phrase in a multiple *wh*-question.

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The second property of *naze* that I will take up is observed in intervention environments, and I will call it anti-intervention. Japanese evidences intervention effects of the type studied by Beck (1996a).[4] This is demonstrated with the negative-sensitive focus marker *-sika* 'only' in (15) below; this focus marking is on the subject *Hanako*, and it functions as an intervenor preventing the *wh*-phrase 'by-who' from taking scope (Takahashi [1990] originally observed the intervention effect triggered by *-sika*).

(15) *Hanako-sika dare-ni erab-are-nakat-ta no?
Hanako-only who-by choose-PASS-NEG-PST Q
'By whom was only Hanako chosen?'

All *wh*-phrases are subject to this intervention effect save one. As noted in Miyagawa (1997b), *naze* is able to survive in an intervention environment.

Anti-intervention (Miyagawa 1997b)
(16) Hanako-sika naze erab-are-nakat-ta no?
Hanako-only why choose-PASS-NEG-PST Q
'Why was only Hanako chosen?'

Ko (2005) provides cross-linguistic confirmation, from Korean, of the anti-intervention effect with 'why'.

(17) a. ***Amwuto/*John-pakkey** mwues-ul (Beck and Kim 1997)
Anyone/John-only what-ACC
ilk-ci-anh-ass-ni?
read-CI-not-PST-Q
'What did no one/only John read?'
b. **Amwuto/?John-pakkey** way ku chayk-ul (Ko 2005)
Anyone/John-only why that book-ACC
ilk-ci-anh-ass-ni?
read-CI-not-PST-Q
'Why did no one/only John read that book?'

The third peculiar property of *naze*, noted by Nishigauchi (1986, 1990; see Huang 1982 for an earlier related study based on Chinese) is what I will term anti-pied-piping. Japanese does not exhibit complex-NP and adjunct island constraints.

(18) Taroo-wa [nani-o yonda hito]-to hanasita no?
Taro-TOP what-ACC read person-ACC spoke Q
Lit. 'What did Taro speak with the person who read?'

(19) Hanako-wa [Taroo-ga nani-o katta kara] okotta no?
Hanako-TOP Taro-NOM what-ACC bought because become.angry Q
Lit. 'What did Hanako become angry because Taro bought?'

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A leading idea is that in these constructions, the entire island that contains the *wh*-phrase is pied-piped to Spec,CP, thereby circumventing an island violation (Nishigauchi 1986, 1990; Choe 1987; Richards 2008). However, *naze* is unable to avoid an island violation (Nishigauchi 1986, 1990).

Anti-pied-piping

(20) *Taroo-wa [sono hon-o naze katta hito]-to hanasita no?
Taro-TOP that book-ACC why bought person-ACC spoke Q
Lit. 'Why did Taro speak with the person who bought that book?'

(21) *Hanako-wa [Taroo-ga naze kaetta kara] okotta no?
Hanako-TOP Taro-NOM why went.home because become.angry Q
Lit. 'Why did Hanako become angry because Taro went home?'

This is what I term the anti-pied-piping property of *naze*.

What I wish to demonstrate is that anti-superiority is a reflection of a general property of 'why' across languages, and that anti-intervention and anti-pied-piping also are a reflection of general properties, in these cases involving the language typology of agreement-based and discourse-configurational languages.

As an illustration of the universality of anti-superiority, let us look at English, Chinese, and Romanian. In English, there is no anti-superiority in the overt form; in fact the overt form must have *why* as the first *wh*-phrase (e.g., Lasnik and Saito 1984).

(22) Why did you buy what?

However, despite the surface ordering, the most natural interpretation of this example as a pair-list question has *what* being interpreted as the left-most *wh*-phrase. So, (22) is most easily interpreted as a question in which, for a given set of objects (*what*), one would give the reason for purchasing each object. The other order is not completely out, but it is not the preferred interpretation and if one were to interpret the sentence with this order, it would strongly favor a single-pair answer instead of a pair-list one. So, at the interpretive level, we find the anti-superiority ordering even in English.

In Chinese, if two *wh*-phrases occur in an indirect question, and one of them is *weishenme* 'why', then *weishenme* and the other *wh*-phrase cannot both take scope within the indirect question. Crucially, the scope is asymmetrical, with *weishenme* necessarily taking lower scope than the other *wh*-phrase (Huang 1982, 526; see also Takita and Yang 2014). This again is an instance of anti-superiority.

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(23) Ni xiang-zhidao [Lisi **weishenme** mai-le **shenme**]?
you want-know Lisi why buy-LE what
(i) Lit. 'What do you wonder [Lisi bought *t* why]?'
(ii) *Lit. 'Why do you wonder [Lisi bought what *t*]?'

Finally, in Romanian, a multiple-*wh*-fronting language (Rudin 1988), there is the restriction that 'why' cannot occur as the left-most *wh*-phrase (Soare 2009, Shlonsky and Soare 2011), paralleling the anti-superiority construction in Japanese.

(24) a. Cine de ce a plecat?
who why has left
'Who left and why?'
b. *De ce cine a plecat?

(25) a. Pe cine de ce ai întrebat despre accident?
ACC who why have (you) asked about accident
'Who did you ask about the accident and why?'
b. *De ce pe cine ai întrebat despre accident?

(26) a ?Când de ce l-ai văzut?
when why him-have (you) seen
'When did you see him and why?'
b. *De ce când l-ai văzut?

4.4 'Why' Moves (Shlonsky and Soare 2011)

Many have argued that 'why' is *externally merged* at the left periphery of the clause (e.g., Bromberger 1987, 1992; Hornstein 1995; Ko 2005; Rizzi 1990, 2001; Stepanov and Tsai 2008; Thornton 2008). Ko (2005), for example, uses the external-merge analysis to account for the anti-intervention effect by noting that on this analysis, 'why' is already in Spec,CP, so there is no reason for it to move to take scope, hence no intervention effect arises.

Rizzi (2001), who was an early proponent of the external-merge approach (Rizzi 1990), offers a detailed analysis within cartography. He argues that the Italian 'why' *perché* is base generated in Spec,Int(errogative), which is higher than Spec,Foc, the position to which other *wh*-phrases move.

(27) *Perché* is not associated with focus (Rizzi 1999)
a. ***A chi** QUESTO hanno detto (non qualcos'altro)? (Rizzi 1999, 4)
to who this said not something else
'To who did they say THIS (not something else)?'

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b. **Perché** QUESTO avremmo dovuto dirgli, (Rizzi 1999, 7)
why this we should have tell.him
non qualcos'altro?
not something else
'Why should we have said THIS to him, not something else?'

In (27a), *a chi* 'to whom' cannot co-occur with the focused *QUESTO*, while (27b) shows that *perché* is fine with it. On the assumption that only one focused element can occur within a clause, (27b) indicates that *perché* is not associated with focus. Based on this and other observations, Rizzi argues that *perché* is externally merged into Spec,Int, which is higher than Spec,Foc.

One problem that the external-merge approach to 'why' faces is that, as we saw at the outset of this chapter, there is a difference between unfocused (moved) and focused (externally merged) 'why' in European Portuguese. Second, it is not hard to find cases where 'why' clearly has moved in languages such as English.

(28) Why did you say that John left? (ambiguous)

As Shlonsky and Soare (2011) point out, this is not expected on the external-merge approach because the external merging of 'why' is to a scope position, hence Criterial Freezing should prohibit movement of 'why' from the externally merged position. See Ko (2005), who is aware of this problem for the external-merge approach to 'why'. Below, we will see evidence that 'why' always moves.

4.4.1 Problem for the External-Merge Hypothesis: 'Why' Apparently Always Moves

Shlonsky and Soare (2011) give an argument that 'why' moves. I will go over their analysis in some detail because I will adopt their proposal of "ReasonP" as the source of 'why'; I will combine this with a suggestion for 'why' by Beck (1995, 1996b) to arrive at a proposal for the general characterization of 'why' that accounts for anti-superiority, and, with an additional assumption, also anti-intervention and anti-pied-piping.

Many English speakers do not allow *why* in an infinitival question (the following are taken from Shlonsky and Soare 2011).

(29) I asked Bill a. whether to serve spiced aubergines for dinner.
b. who to serve.
c. what to serve the guests.
d. when to serve spiced aubergines.
e. how to serve spiced aubergines.
f. where to serve spiced aubegines.
g. ??why to serve spiced aubergines.

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(30) a. Whether to serve spiced aubergines is the big question.
b. Who to invite for dinner
c. What to serve the guests
d. When to serve the spiced aubergines
e. How to serve spiced aubergines
f. Where to serve spiced aubergines
g. ??Why to serve spiced aubergines

The difference disappears in a tensed clause:

(31) I asked Bill a. whether I should serve spiced aubergines for dinner.
b. who I should serve.
c. what I should serve the guests.
d. when I should serve spiced aubergines.
e. how I should serve spiced aubergines.
f. where I should serve spiced aubergines.
g. why I should serve spiced aubergines.

Shlonsky and Soare argue that the failure of infinitival clauses to host *why* is due to the fact that an infinitival clause is a reduced clause (Hooper and Thompson 1973; Haegeman 2006, 2010). Shlonsky and Soare suggest the following "truncated" structure for infinitival clauses based on Rizzi's (1997, 2001) clausal structure.

(32) ~~ForceP > IntP > TopP > FocP >~~WhP > Fin(ite)P

WhP is a position that, along with FocP, can host a non-*why wh*-phrase. Immediately, we see that if, by the external-merge approach, *why* is externally merged at IntP, the truncated structure in (32) correctly predicts that *why* cannot occur in infinitival clauses.

However, there is evidence that *why* can be externally merged in an infinitival clause although it can't stay there (Shlonsky and Soare 2011).

(33) Why did you ask her to resign?
(a) What is the reason X, such that for X, you asked her to resign?
e.g., Because I didn't want to just tell her. (short construal)
(b) What is the reason X, such that you asked her to resign for that particular reason X?
e.g., I asked her to resign because of her health, not because of her intelligence … (long construal)

In (33a), the question targets the reason for asking, but in (33b), the question has to do with the reason for resigning. The latter reading requires that *why*

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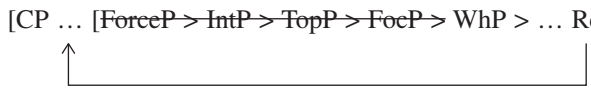
be associated with the infinitival clause despite the fact that it never appears there.

Based on the possibility of the long construal in (33b), Shlonsky and Soare propose that *why* is externally merged in what they call ReasonP. For the long construal, ReasonP occurs in the infinitival clause, and the *why* inside it moves to the matrix clause.

(34) For the long construal in (31)



ReasonP is above NegP (e.g., Ko 2005), as seen by the fact that negation does not block local movement of *why*, whereas *how*, which is lower in the structure, is so blocked (Shlonsky and Soare 2011).

(35) a. Why didn't Geraldine fix her bike?
b. *How didn't Geraldine fix her bike?

(36) a. why … t_{why} … NegP
b. *how … NegP … t_{how}

While negation does not block short construal of *why*, the situation changes with long-distance construal, which is blocked by negation (Rizzi 1990).

(37) Why didn't you say Geraldine fixed her bike?

This example only has the interpretation in which *why* is associated with the matrix clause; the subordinate reading is blocked by the matrix negation. Shlonsky and Soare further assume that, based on the anti-intervention facts, ReasonP is higher than the subject, since an intervenor subject does not block *why*, as we saw earlier.

Before turning to additional evidence for the movement of 'why', I would like to return briefly to the discussion of European Portuguese. Recall that there are two versions of 'why', unfocused and focused. The unfocused 'why' moves to Spec,CP, as indicated by the inversion of the verb, while the focused 'why' is externally merged, as we can see by the fact that no verb inversion occurs. The examples are repeated below.

(38) a. Porque veio o João?
why came João
'Why did João come?'
b. Porquê o João veio?
why João came
'Why did João come?'

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João Costa, who noted these examples, also notes the following, in which 'why' can only occur in an infinitival clause if it is focused.

(39) Eu não sei … 'I don't know …'
a. o que comer. 'what to eat.'
b. como comer. 'how to eat.'
c. onde comer. 'where to eat.'
d. ??porque comer. 'why to eat.'

As shown, European Portuguese 'why' without focus behaves like English *why* in not being able to occur in an infinitival clause. However, 'why' becomes fine if it has focus.

(40) Eu não sei porquê comer.
I not know why to eat

This puts the focused 'why' in the same group as other, non-'why' *wh*-phrases, which normally occur in FocP in cartography (and WhP in the infinitive). This is further evidence that the externally merged 'why' in European Portuguese has a focus feature, and confirms the assumption that external merge requires the focus feature at C.

4.4.2 Evidence from Chinese for 'Why' Movement

One difference between Chinese and Japanese is that, while both are *wh*-in-situ, Japanese exhibits *wh*-island effects (A. Watanabe 1992) while Chinese does not (Huang 1982). This has led to the proposal that Chinese uses unselective binding for *wh*-phrases while Japanese uses movement (Tsai 1994, 1999).

(41) a. *Kimi-wa [**dare-ga** kuru ka(dooka)] siritai no? (Japanese)
you-TOP who-NOM come whether want.to.know Q
'Who is the person x such that you wonder whether x will come?'
b. Ni xiang-zhidao [**shei** lai-bu-lai] (ne)? (Chinese; Tsai 1999, 60)
you want-know who come-not-come Q
'Who is the person x such that you wonder whether x will come?'

But 'why' undergoes movement even in Chinese (Tsai 1994). 'Why' with the meaning *for what reason* is island sensitive.

(42) a. Ni zui xihuan [[**weishenme** gongzuo de] ren]?
you most like why work DE person
'What is the *reason/purpose x such that you most like [people [who work for x]]?

This example cannot be interpreted with *weishenme* referring to the reason why the people are working.

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b. # Yingwei (ta) you lixinag. (*reason* answer)
because he have ideal
'Because he has ideals.'

On the other hand, if *weishenme* is interpreted as asking the people's purpose for working, the sentence is fine, showing that it is 'why' in the reason interpretation that undergoes movement. This is the interpretation we have been dealing with.

c. Wei-le lixiang. (*purpose* answer)
for-LE ideal
'For ideals.'

4.5 The Structure of 'Why'

The challenge in capturing the structure and meaning of 'why' lies in the fact that this *wh*-phrase, unlike other *wh*-phrases, stands for a clause, not just a phrase, and one that is adverbial in nature (Bromberger 1987, 1992; Rizzi 1990). This adverbial clause goes with the TP that expresses the event or the state for which the reason is sought. In Beck's analysis (1995, 132; also 1996b), which is semantic in nature, the meaning of 'why' decomposes into *because of what*. This *because* clause is the adverbial clause that goes with the TP. To get the scope reading, Beck suggests that *what* in *because of what* is extracted at LF to give the structure [*because of* t^{LF}], with the propositional interpretation of '$\lambda qCAUSE_w(p,q)$'. The question in (43a) would have a meaning something like (43b) (Beck 1995, 1996b).

(43) a. Why did Peter leave?
b. [what reason x, because of x] [Peter left]

One question for Beck's approach is, what precisely is the function of the actual word 'why'? In her analysis, it is the abstract *what* in *because of what* that raises at LF to give scope. But in reality, it is 'why' that moves to the local Spec,CP or to a higher Spec,CP to take scope. We therefore need to understand the relationship of the actual word 'why' to the *because* adverbial clause.

Let us suppose that Beck's *because* clause corresponds to Shlonsky and Soare's (2011) ReasonP. For Shlonsky and Soare, this ReasonP is the source of the word 'why'; importantly, it is a syntactic entity and not a semantic decomposition of 'why' as in Beck's approach. What we need to do is to reconcile the abstract *because* clause of Beck's approach with the syntactic ReasonP proposal of S&S, and arrive at the source of 'why' from the structure that results from this reconciliation of the two approaches.

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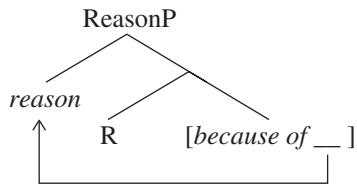
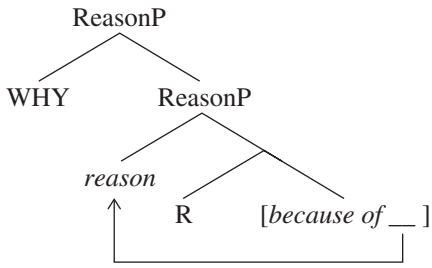
A fundamental question for the structure of 'why' is, how is it that the word 'why' takes on a clausal structure? My proposal takes Beck's *because* clause not as an abstract semantic decomposition but as a syntactic entity. I will also propose that this clause gives content to a major portion of Shlonsky and Soare's ReasonP. Following Beck, I assume that the *what* in *because of what* raises, although in Beck's system, it is not clear to where *what* moves. I will make three specific proposals about this moved element. First, I will give it the full semantic content of *reason* as opposed to just 'what'. Second, it moves to the specifier of ReasonP.

(44)



This creates a structure similar to Beck's structure, but created at syntax. Third, this entire clausal structure is given phonological representation with insertion of 'why', adjoining to ReasonP and having scope over the entire ReasonP.

(45)



The insertion of 'why' accounts for the fact that this word is always associated with an entire clause, for which I use Shlonsky and Soare's label of ReasonP. From this position 'why' raises to Spec,CP (or Spec,Int) to take scope, leaving a variable in its original position, and the resulting structure is similar to Beck's representation of 'why': *what x, x reason, because of x*. External merge of 'why' simply means that 'why' would externally merge into Spec,CP and be associated with ReasonP. Because no movement is involved, this construal can only be local. This external merger would be the one exception to Shlonsky and Soare's claim that 'why' always moves.

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4.6 Anti-Superiority and the Structure of 'Why'

The main point I wish to pursue about anti-superiority is the following:

(46) Anti-superiority
The anti-superiority seen in Japanese involving *naze* reflects a general property of pair-list questions in language (see S. Watanabe 1994, 1995, 2000, who first noted this idea).

This general property of pair-list questions is that the left-most *wh*-phrase must be D-linked (Comorovski 1996, Hornstein 1995; see also Dayal 1996). This is shown in a couple of English examples from Bolinger (1978).

(47) a. It's nice to have all those times scheduled, but when are you doing what?
(#But what are you doing when?)
b. It's nice to have all those activities ahead of you, but what are you doing when?
(#But when are you doing what?)

In (47a), the first clause sets up *all those times* as a topic in the conversation, so that a natural pair-list question is to have *when* be the first *wh*-phrase as the anchor, followed by another *wh*-phrase. In (47b) the situation is the opposite; now it is the activities that are situated in the discourse, so the natural pair-list question is one that has *what* referring to the activities as the left-most *wh*-phrase. I will demonstrate that the proposed structure of 'why' provides a structural explanation for why 'why' cannot play this role as the "anchor" in a pair-list question.

The reason why 'why' cannot play this role as the left-most *wh*-phrase in a pair-list question is because it refers to a property, not to individuals (S. Watanabe 1994, 1995, 2000; based on Chierchia 1992–1993, Hornstein 1995; see also Aoun 1985; Bromberger 1987, 1992; Cinque 1990; Kuno and Takami 1993). This is why even in English, in which *why* occurs as the first *wh*-phrase in a multiple *wh*-question, it doesn't naturally get interpreted as the left-most *wh*-phrase in pair-list question.

(48) Why did you buy what?
Which x, x a thing [from the set understood in discourse]: anchor
Reason ranges over this set, and *not the other way around.*

Similarly in Chinese, two *wh*-phrases, one of which is *weishenme*, in an indirect question may occur in either order in surface form, but they cannot both be interpreted inside the indirect question. Rather, one must take matrix scope, and it cannot be *weishenme* (Huang 1982, 526).

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(49) Ni xiang-zhidao [Lisi **weishenme** mai-le **shenme**]?
you want-know Lisi why buy-LE what
(i) Lit. 'What do you wonder [Lisi bought *t* why]?'
(ii) *Lit. 'Why do you wonder [Lisi bought what *t*]?

We saw that Romanian is identical to Japanese in not allowing 'why' to occur as the left-most *wh*-phrase in multiple *wh*-fronting questions.

Why is it that 'why' cannot be D-linked, depriving it of the ability to function as the anchor in a pair-list question? Intuitively, 'why' is a sentential adverb (Bromberger 1987, 1992; Rizzi 1990), which we captured with the placement of ReasonP above TP (Beck 1995, Shlonsky and Soare 2011). As we will see, our account of 'why' as a sentential adverb in turn accounts for the anti-intervention effect of 'why'. To see this, we will first turn to another kind of *wh*-question, the 'how many' question, which contains scope ambiguity.

How many

(50) How many people do you think I should talk to?
(i) For what n: there are n-many people x, such that you think I should talk to x. (outer reading)
(ii) For what n: you think it should be the case that there be n-many people that I talk to. (inner reading)

The so-called outer reading presupposes the existence of certain people (Lahiri 2002; cf. Cresti 1995). On this reading of the question, the answer may consist of actual people: "You should talk to John, Mary, and Sally." In contrast, for the inner reading, there is no presupposition; it is purely a question about a number ("You should talk to three people"). A good example of the inner reading is the poll-taking question: "How many people should I talk to to obtain a valid poll result?"

An interesting property of the outer and inner readings that is directly pertinent to our proposal for 'why' is the following:

(51) (At least for some *wh*-chains), if it is interpreted as *presuppositional*, all parts of the *wh*-phrase are interpreted high in the structure, while if it is interpreted as *non-presuppositional*, some relevant part of the *wh*-phrase is interpreted low in the structure.

In the example in (50), the outer reading has both the operator part of the *wh*-phrase and the restriction interpreted in CP (*for what n: there are n-many people x …*); in the inner reading, the operator portion (*for what n*) occurs in the CP, but the restriction (*n-many people*) occurs lower in the structure.

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Evidence that in the outer reading the restriction is interpreted high, with the operator, and that in the inner reading it is interpreted lower, away from the operator, can be found in island and intervention environments. In these environments, the inner reading (non-presuppositional) is not possible (Rizzi 1990, Beck 1995, Cresti 1995; see also Frampton 1990).

(52) a. How many people do you wonder whether I should talk to? (*wh*-island)
   (i) For what n: there are n-many people x, such that you wonder whether I should talk to x.
   (ii) *For what n: you wonder whether it should be the case that there be **n-many** people that I talk to.
   b. Wieviele Hunde hat Karl nicht gefüttert? (negative island)
   how many dogs has Karl not fed
   (i) For which n: there are n dogs that Karl didn't feed.
   (ii) *For which n: it is not the case that Karl fed n dogs.

In the example in (a), the 'how many' phrase has crossed a weak island, and in (b), it has crossed the negation, which is an intervenor. In both cases, the most natural interpretation is the outer reading, in which there is a presupposed group of people (a) or dogs (b) about which the question is being asked. The inner reading is difficult, if not impossible, because an intervenor occurs between the operator and its restriction (Pesetsky 2000).

What we have, then, is the following. In order for a *wh*-phrase to be presuppositional, all of its portions—operator and restriction—must be interpreted high (Spec,CP). If not, it cannot be presuppositional. Given what we said about 'why', that it cannot be D-linked, and therefore cannot be presuppositional, we can derive this property of 'why' if it has a structure in which some part must always occur lower in the structure than the operator portion. I will propose such a structure for 'why'.

Returning to the anti-superiority property of 'why', we can now give a principled reason why this property is associated with this *wh*-phrase.

(53) The restriction of 'why' is always interpreted lower in the structure than the operator.

This is because of the structure of ReasonP: part of the meaning of 'why', after 'why' is extracted to Spec,CP, is *because of x*.

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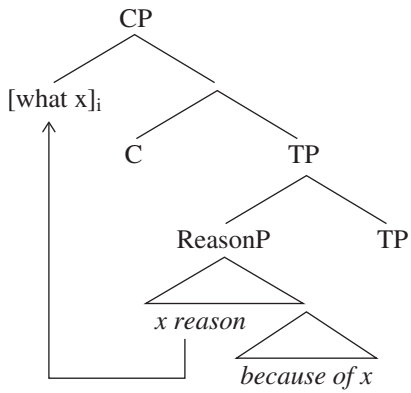
(54)



The *because* clause is the restriction of 'why', and it is always interpreted lower than CP. Hence, we expect that 'why' cannot have a presuppositional meaning. This is true even for externally merged 'why', which is accompanied by the ReasonP that holds its restriction, and the ReasonP occurs lower than Spec,CP as above.

4.7 Evidence That *Naze* Can Occur Low in the Structure

The external-merge hypothesis about 'why' (e.g., Bromberger 1987, 1992; Rizzi 1990; Ko 2005) predicts that, in a simplex question, 'why' does not occur lower than Spec,CP (or Spec,IntP). I will give evidence that *naze* can in fact occur lower than Spec,CP. Later, I will show that Ko's insight, that 'why' divides the sentence into those constituents that are scrambled to its left of and the nonscrambled constituents that occur to its right, is fundamentally correct. I will capture this insight not at the CP level as Ko proposed, but at the TP level.

One prediction of the external-merge hypothesis about 'why' is that anything that occurs to the left of 'why' has moved there by scrambling (Ko 2005, 2006). Under this approach, the object in the following example that occurs to the left of *naze* has scrambled and adjoined to CP above *naze*.

(55) Ronbun-o naze Taroo-ga tookoosi-nakat-ta no?
paper-ACC why Taroo-NOM submitted-NEG-PST Q
'Why didn't Taro submit his paper (for publication)?'

To check this prediction, we can look at certain types of verb phrase idioms that have the property that the object portion of the idiom may undergo "short" scrambling within the verb phrase, but it cannot scramble higher to the left of the subject. The following is an example of such an idiom.

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(56) a. Tanaka-wa mune-o itamete-iru.
Tanaka-TOP chest-ACC hurt
'Tanaka is worried.'
b. Tanaka-wa mune-o yoku itamete-iru.
Tanaka-TOP chest-ACC frequently hurt
'Tanaka is often worried.'
c.*Mune-o Tanaka-wa itamete-iru.
chest-ACC Tanaka-TOP hurt
'Tanaka is worried.'

(56b) shows that the object portion of the idiom, *mune-o* 'chest-ACC', may undergo short scrambling within the verb phrase across the adverb 'frequently'. The example in (56c) shows that the object cannot scramble to the TP region, to the left of the subject. Now note the following example with *naze*.

(57) Tanaka-wa mune-o naze itamete-iru no?
Tanaka-TOP chest-ACC why hurt Q
'Why is Tanaka worried?'

The object *mune-o* 'chest-ACC' occurs to the left of *naze*. Under the external-merge hypothesis, this object along with the subject must have scrambled above Spec,CP, which hosts *naze*. However, we saw that with this idiom, the object cannot scramble out of the verb phrase, which indicates that in this example, the object must have scrambled within the verb phrase across *naze*. In turn, the example shows that *naze* occurs in the verb phrase, contrary to the prediction of the external-merge hypothesis. The following is another idiom that demonstrates the same point.

(58) a. Ano gakusei-tati-ga kao-o awaseru.
Those students-NOM face-ACC fit.together
'Those students will meet.'
b. Ano gakusei-tati-wa kao-o yoku awaseru.
those students-TOP face-ACC frequently fit.together
'Those students meet frequently.'
c.*Kao-o ano gakusei-tati-wa yoku awaseru.
face-ACC those students-TOP frequently fit.together
'Those students meet frequently.'
d. Ano gakusei-tati-wa kao-o naze awasete-iru no?
those students-TOP face-ACC why fit.together-PROG Q
'Why are those students meeting?'

The example in (58b) shows that the object portion of the idiom, *kao-o* 'face-ACC', may undergo short, verb-phrase-internal scrambling, while (58c)

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indicates that this object cannot undergo scrambling to a higher region, TP or CP. The example in (58d) demonstrates that it is fine to have the object precede *naze*, which demonstrates that *naze* in this example occurs within the verb phrase and not in any higher position.

Another argument to show that *naze* may occur low in the structure comes from verb-phrase preposing. The following construction involves the verb phrase fronting to a position above the subject (Hoji, Miyagawa, and Tada 1989, Yatsushiro 1997).

(59) [Ano gakusei-o home-sae] Hanako-ga sita.
that student-ACC praise-even Hanako-NOM did
'Even praise that student, Hanako did.'

We can see that the moved element is the entire verb phrase by the fact that the object cannot be left behind.

(60) *[Home-sae] Hanako-ga ano gakusei-o sita.
praise-even Hanako-NOM that student-ACC did
'Even praise that student, Hanako did.'

As shown below, it is possible for *naze* to occur inside the moved verb phrase, showing that *naze* may occur low in the structure in the verb phrase.[5]

(61) [Ano gakusei-o naze home-sae] Hanako-ga sita no?
that student-ACC why praise-even Hanako-NOM did Q
'Why did Hanako even praise that student?'

Recall that the anti-intervention property of *naze* in Japanese and *way* in Korean led Ko (2004, 2005) to propose the external-merge analysis of 'why' in these languages.

(62) a. Hanako-sika naze erab-are-nakat-ta no? (Miyagawa 1997b)
Hanako-only why choose-PASS-NEG-PST Q
'Why was only Hanako chosen?'
b. **Amwuto/?John-pakkey** way ku chayk-ul (Ko 2005)
Anyone/John-only why that book-ACC
ilk-ci-anh-ass-ni?
read-CI-not-PST-Q
'Why did no one/only John read that book?'

We saw above that *naze* can be merged low in the structure, as low as the verb phrase. It is possible that in these anti-intervention contexts, *naze* is merged directly into Spec,CP, as Ko has argued. That this isn't the case is shown below. Thanks to Tomonori Otsuka of Kyushu University for the example. The context he gives is: a student is misbehaving, and only Hanako is willing to warn the student.

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(63) ?[Ano gakusei-o naze tyuuisi-sae] Hanako-sika si-nakat-ta no?
that student-ACC why warn-even Hanako-only do-NEG-PST Q
'Why did only Hanako even warn that student?'

The sentence is awkward because there are two focused elements, the verb phrase with 'even' and the subject with 'only', but beyond this, the sentence is grammatical, showing that a *naze* that is merged as low as within the verb phrase is capable of anti-intervention. Compare this to an argument *wh*-phrase, which is ungrammatical.

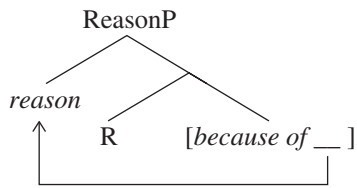
(64) *Dono gakusei-o tyuuisi-sae Hanako-sika si-nakat-ta no?
which student-ACC warn-even Hanako-only do-NEG-PST Q
'Which student did Hanako even warn?'

An important point to note about "low-occurring" *naze* is that, despite its position in, for example, the verb phrase, as we saw above, it is interpreted above the TP. For example, in the anti-intervention example above, in which *naze* occurs within the fronted verb phrase, *naze* still has scope over the entire sentence and not just the verb phrase. This is why *naze* is able to overcome the intervention. This means that *naze* must undergo movement, but to where does it move? I will argue that it does not move directly to Spec,CP, but rather, to the ReasonP. It is this movement to ReasonP that leads to anti-intervention and anti-pied-piping.

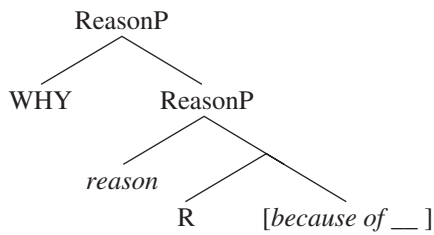
4.8 The Two-Tier Movement Analysis of 'Why'

I proposed the following for the basic structure of the 'why' that is not externally merged.

(65)



(66) 'Why' insertion



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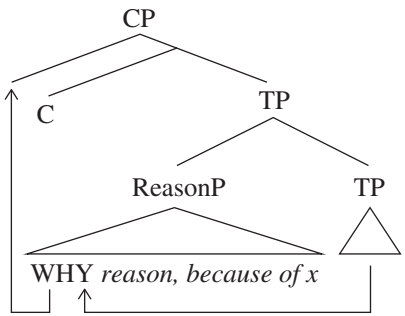
Modifying the idea in Beck (1995, 1996b), the idea is that a 'why' clause begins as *because of what*, and the *what* raises to the specifier of ReasonP. At this point, the actual word 'why' is inserted to give phonological value to the entire ReasonP, giving 'why' the clausal adverbial meaning.

What we saw from Japanese is that *naze* may be merged lower than TP, as low as in the verb phrase. In a language such as Japanese, then, 'why' is merged low in the structure, and moves to Spec,ReasonP to compose the ReasonP. This is what I call the two-tier movement analysis of 'why'. As we will see, not every language allows this two-tier movement.

(67)



Importantly, the first movement from within TP to ReasonP is not to take scope, but to give ReasonP a phononogical value. This gives an explanation for the anti-intervention.

(68) Hanako-sika naze erab-are-nakat-ta no? (Miyagawa 1997b)
Hanako-only why choose-PASS-NEG-PST Q
'Why was only Hanako chosen?'

Naze occurs lower than the subject, which is an intervenor due to the focus marker *-sika* 'only'. *Naze* undergoes covert movement to ReasonP, located above the subject. This movement is not for scope taking, hence it is not flagged by the intervenor. This proposal has an advantage over Ko's (2005) external-merge analysis in that there is no need to assume that anything to the left of 'why' has scrambled above Spec,CP. In (68), we can continue to assume that the subject is in its standard Spec,TP position.

Once 'why' moves to ReasonP, it then undergoes movement to Spec,CP (or Spec,IntP); unlike the first movement, this second movement is for taking scope. It is this second, scope-taking movement that gets flagged in long-distance movement of *naze*.

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(69) *Hanako-sika [Taroo-ga naze erab-are-ta to] iw-anakat-ta no?
Hanako-only Taro-NOM why choose-PASS-PST C say-NEG-PST Q
'Why did only Hanako say that Taro was chosen?'

This is the same as the blocking of long-distance movement of *why* in English (Rizzi 1990).

(70) *Why$_i$ don't you think [Mary quit her job t_i]?

The two-tier movement analysis of 'why' readily accounts for another peculiar property of *naze*. Recall that Japanese, a *wh*-in-situ language, does not evidence complex-NP and adjunct island violations.

(71) Taroo-wa [nani-o yonda hito]-to hanasita no?
Taro-TOP what-ACC read person-with spoke Q
Lit. 'What did Taro speak with the person who read?'

(72) Hanako-wa [Taroo-ga nani-o katta kara] okotta no?
Hanako-TOP Taro-NOM what-ACC bought because become.angry Q
Lit. 'What did Hanako become angry because Taro bought?'

According to the pied-piping analysis (Nishigauchi 1986, 1990; Choe 1987; Richards 2008), the island itself is moved covertly to take scope; thus, in (71), 'the person who read what' raises to Spec,CP. A strong piece of evidence for the pied-piping analysis comes from languages where this pied-piping occurs overtly. As noted by Richards (2008) based on Cole (1982) and Hermon (1984), in Imbabura Quechua, which is a *wh*-movement language, the entire island may be moved overtly.

(73) [Ima-ta randi-shka runa-ta-taj] riku-rka-ngui?
what-ACC buy-NMLZ man-ACC-Q see-PST-2
'[The man that bought what] did you see?'

This is possible also for adjunct islands, but, interestingly, not for *wh*-islands. Japanese also evidences *wh*-islands (A. Watanabe 1992). Hence Japanese parallels Imbabura Quechua in the islands that can be overcome by pied-piping: complex-NP and adjunct islands, but not *wh*-islands.

The one exception to Japanese's island insensitivity is *naze*.

(74) *Taroo-wa [sono hon-o naze katta hito]-to hanasita no?
Taro-TOP that book-ACC why bought person-ACC spoke Q
Lit. 'Why did Taro speak with the person who bought that book?'

(75) *Hanako-wa [Taroo-ga naze kaetta kara] okotta no?
Hanako-TOP Taro-NOM why went.home because become.angry Q
Lit. 'What did Hanako become angry because Taro went home?'

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There are two possible positions for ReasonP, neither of which leads to a grammatical derivation. The ReasonP may occur inside the island. If the entire island is then pied-piped, it would mean that the entire 'why' clause would be in the scope position of Spec,CP. However, the whole point of the ReasonP composition is that the restriction portion, *because of x*, must be interpreted lower than Spec,CP for proper interpretation of the string. That excludes ReasonP from being pied-piped. The other possibility is that the ReasonP is located above the TP that contains the island. This would require a two-tier movement analysis. On the first movement, from inside the island to Spec,ReasonP, *naze* would incur an island violation. Note that the entire island cannot undergo this movement because the movement is to fully compose the ReasonP.

We saw that Japanese has the possibility of a two-tier movement for *naze*. Does Chinese have a similar two-tier movement option for *weishenme*? The following suggests that it does not.

Chinese (Aoun and Li 1993)

(76) a. Meigeren dou weishenme da ta? (ambiguous: *every* > *wh*; *wh* > *every*)
everyone all why hit him
'Why did everyone hit him?'

b. Weishenme meigeren dou da ta? (unambiguous: **every* > *wh*; *wh* > *every*)
why everyone all hit him
'Why did everyone hit him?'

Japanese

(77) a. Minna-ga naze Tanaka-sensei-o (unambiguous: **every* > *wh*; *wh* > *every*)
everyone-NOM why Prof. Tanaka-ACC
kiratte iru no?
hate Q
'Why does everyone hate Professor Tanaka?'

b. Naze minna-ga Tanaka-sensei-o (unambiguous: **every* > *wh*; *wh* > *every*)
why everyone-NOM Prof. Tanaka-ACC
kiratte iru no?
hate Q
'Why does everyone hate Professor Tanaka?'

In Chinese, the order 'everyone'–'why' has an ambiguous reading in which not only 'why' can take scope over the universal quantifier, making a single-pair question, the universal may also scope over 'why', which results in a pair-list question. In the other order, why'–'everyone', only the single-pair question interpretation is possible. I have consulted with a number of Chinese speakers, and they all agree that this difference is robust. In contrast, in the

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Japanese examples, regardless of word order, pair-list interpretation is impossible, or, for some speakers, quite difficult. A couple of speakers I consulted at first thought that the pair-list reading was possible with the 'everyone'–'why' word order, like in Chinese, but it turns out that they were interpreting 'everyone' as referring to the actual people being asked—'You all, why do you hate Prof. Tanaka?' With this reading excluded, as in (78), these speakers also agreed that a pair-list interpretation is difficult, if not impossible.[6]

(78) Nee, Taroo, minna-ga naze Tanaka-sensei-o kiratte iru no?
say Taro everyone-NOM why Prof. Tanaka-ACC hate Q
'Say, Taro, why does everyone hate Professor Tanaka?'

Let us see how we can account for the difference, starting with Japanese. In the 'everyone'–*naze* order, I presume that 'everyone' is in the natural subject position of Spec,TP. *Naze* is base generated lower than this position, and first undergoes covert movement to Spec,ReasonP, which is above the TP and below the CP. This movement is strictly to compose the ReasonP, and not for taking scope. Scope movement occurs from Spec,ReasonP to Spec,CP.

(79) $[_{CP}\ [_{ReasonP}\ [_{TP}$ *minna* 'everyone' … *naze* …] …] …]

scope compose ReasonP

The first movement does not leave a variable because the movement is not for taking scope. As a result, the universal *minna* does not c-command the trace of *naze*, and hence, the universal cannot take scope over *naze*. This blocks the pair-list interpretation (see Chierchia 1992–1993 among others). Compare this to the following.

(80) Minna-ga nani-o katta no?
everyone-NOM what-ACC bought Q
'What did everyone buy?'

This has a clear pair-list question interpretation. This is because the *wh*-phrase *nani* 'what' undergoes movement from its surface position to Spec,CP, leaving behind a variable that is c-commanded by 'everyone'.

In Chinese, the first question to ask is, how is the word order 'everyone'–*weishenme* achieved? One possibility is that 'everyone' moves and adjoins to ReasonP. Let us suppose there. From there, *weishenme* moves once, to take scope. As a result, 'everyone' c-commands the variable left by *weishenme*, and pair-list interpretation becomes possible. As a result, Chinese does not have anti-intervention, as shown by the following example from Yang (2012).

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(81) *Zhiyou Zhangsan weishenme cizhi?
only Zhangsan why[adv] resign
'Why did only Zhangsan resign?'

If Chinese also had a two-tier movement option, we would expect the pair-list interpretation to be out, just as we saw in Japanese.

4.8.1 Why Chinese Does Not Have the Two-Tier Movement of 'Why'

Ko (2005) points out that what we are calling anti-intervention occurs in languages that have scrambling—Japanese and Korean—but not Chinese. Her account is based on external merge of 'why': anything that is to the left of 'why', including the intervenor, has been moved there, adjoining to CP. Because the intervenor has moved over CP, and 'why' does not need to take scope above it, there is no intervention.

(82) INTERVENOR$_i$ [$_{CP}$ 'why' [$_{TP}$ … t_i…]]

This movement to the CP-adjoined position is scrambling, and it is only allowed in languages that have this operation. Contrary to Ko, we have seen that anti-intervention is operative even when *naze* is merged low in the structure, as low as the verb phrase. So the external-merge approach to anti-intervention does not work. Nevertheless, I will adopt the insight in Ko's work.

A sentence can have a variety of focus domains.

(83) John flew to Germany.

This sentence can be used to answer the following questions, each of which identifies a particular focus domain (Reinhart 1995/2006).

(84) a. What happened? (TP)
b. What did John do? (VP)
c. Where did John fly to? (Goal)
d. How did John get to Germany? (Verb)

Each of these has a correlate in a 'why' question, indicated by focus stress (underlined).

(85) a. What happened? John flew to Germany (neutral focus; nuclear stress).
b. What did John do? He <u>flew to Germany</u>.
c. Where did John fly to? He flew to <u>Germany</u>.
d. How did John get to Germany? He <u>flew</u> to Germany.

One can ask about each of these possibilities with a 'why' question, stressing the domain of focus as indicated above.

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(86) a. Why did John fly to Germany? (TP: no narrow focus)
b. Why did John fly to Germany? (VP)
c. Why did John fly to Germany? (Goal)
d. Why did John fly to Germany? (Verb)

In addition, one can focalize the subject.

(87) Why did John fly to Germany? (Subject)

In Japanese, the same options exist in a *naze* question using focus stress.

(88) a. Naze John-ga Doitu-ni tonda no? (TP)
why John-NOM Germany-to fly Q
'Why did John fly to Germany?'
b. Naze John-ga Doitu-ni tonda no? (VP)
why John-NOM Germany-to fly Q
'Why did John fly to Germany?'
c. Naze John-ga Doitu-ni tonda no? (Goal)
why John-NOM Germany-to fly Q
'Why did John fly to Germany?'
d. Naze John-ga Doitu-ni tonda no? (Verb)
why John-NOM Germany-to fly Q
'Why did John fly to Germany?'
e. Naze John-ga Doitu-ni tonda no? (Subject)
why John-NOM Germany-to fly Q
'Why did John fly to Germany?'

Unlike in English, there is a second way to indicate these focus domains in a *naze* question, by placing *naze* in front of the focalized element. Focus stress is utilized only when there is ambiguity, as for example between VP and Goal focus domains.

(89) a. Naze John-ga Doitu-ni tonda no? (TP)
why John-NOM Germany-to fly Q
'Why did John fly to Germany?'
b. John-ga naze Doitu-ni tonda no? (VP)
John-NOM why Germany-to fly Q
'Why did John fly to Germany?'
c. John-ga naze Doitu-ni tonda no? (Goal)
John-NOM why Germany-to fly Q
'Why did John fly to Germany?'
d. John-ga Doitu-ni naze tonda no? (Verb)
John-NOM Germany-to why fly Q
'Why did John fly to Germany?'

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e. Naze John-ga Doitu-ni tonda no? (Subject)
why John-NOM Germany-to fly Q
'Why did John fly to Germany?'

Let us look at one of these cases. In (89b), *naze* is placed between the subject and the verb phrase. With no special focus stress on the non-*wh* portion of the sentence, a natural interpretation is that the speaker is asking for the reason for the VP: fly to Germany. Thus, *naze* sections the sentence into two parts in this example: topic and focus. Since Japanese is a Category I language, topic is inherited by T (except the Aboutness topic, which is universally at C, as noted in chapter 2). *Naze* here is used to mark the border between the topic and focus regions created by raising the subject to Spec,TP by topicalization. It is a function that a non–Category I language cannot resort to; such a language is solely dependent on focus stress, as we saw from the English examples. Chinese, a Category II language like English, works like English with respect to 'why' questions: there is no option for a two-tier movement approach because there is no discourse-configurational feature that operates at the TP level.

4.9 Use of 'What' for 'Why'

In the literature on 'why', two types of meanings are often distinguished—cause and reason—although in some cases the two are difficult to tease apart. Tsai (2008) gives the following examples to illustrate.

(90) a. How come the sky is blue?
b. Why in the hell is the sky blue?
c. Why is the sky blue?

In (a) and (b), the questioner is asking for what caused the sky to be blue, with an implication that the sky was not blue to begin with, and also accompanied by a counter-expectation that the sky somehow should not be blue. In (c), the speaker does not necessarily imply that the sky should not be blue, or that it was some other color before. The first two are asking for a cause, and the third is simply asking the reason. As Ochi (1999, 2004, 2014) notes, 'what' adjunct questions also have the causal implication. In addition, like with *wh-hell* questions in English, the 'what' adjunct question is "most natural in contexts in which emotions such as annoyance, impatience, surprise, and so forth are expressed" (2014, 404).

(91) Was tadeln Sie Hans denn?
what blame you Hans
'Why (the hell) are you blaming Hans?'

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4.9.1 'What' Adjunct Questions in Japanese

The following is an example of a 'what' adjunct question in Japanese (e.g., Kurafuji 1996, 1997; Ochi 1999, 2004, 2014; Nakao and Obata 2009). Compare it to the *naze* 'why' question with essentially the same meaning.[7]

(92) a. Taroo-wa nani-o awatete-iru no?
Taro-TOP what-ACC panick-ing Q
'Why (in the hell) is Taro panicking?'
b. Taroo-wa naze awatete-iru no?
Taro-TOP why panick-ing Q
'Why is Taro panicking?'

As indicated by the English translation, with the 'what' adjunct construction, the speaker is conveying something beyond just a desire to know the reason for Taro's panicking, something like disapproval or impatience, and implying that Taro should not be in this state of mind.

Another difference between *naze* and *nani* 'what' is the location of these adjunct *wh*-phrases. We have seen that *naze* is interpreted high in the structure, above the TP. As Kurafuji (1997) has noted, *nani* is located lower than negation, thus below TP. We can see this by the fact that it cannot occur with negation, an island effect.

(93) a. Taroo-wa naze awatetei-nai no?
Taro-TOP why panic-not Q
'Why is Taro not panicking?'
b. *Taroo-wa nani-o awatetei-nai no?
Taro-TOP what-ACC panic-not Q
'Why is Taro not panicking?'

In part based on Kurafuji's observation that *nani-o* is subject to the negative island, Ochi (2014) argues that *nani* occurs low in the structure, just above the object at V′. One question we might ask is, precisely what is the nature of this 'what', and why is it 'what' as opposed to some other *wh*-phrase? And what is the source of the "causal" meaning, as well as the "emotions such as annoyance, impatience, surprise" that Ochi has noted? Before answering these questions, there is one more point about *nani* that we should take into account. Kurafuji (1997) notes that *nani* shows anti-superiority like *naze*.

(94) *Nani-o dare-ga awateteiru no?
what-ACC who-NOM panicking Q
'Who is panicking why?'

Based on our discussion of the anti-superiority of *naze*, we might expect that *nani* also has an operator-restriction structure where the restriction is separate

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from the *wh*-phrase *nani*. Let us see what this operator-restriction structure could be.

As Kurafuji (1997) noted, *nani-o* is subject to inner islands such as the negative island. Recall our discussion earlier in the chapter about the complex quantifier 'how many' and negative islands. In inner islands such as the negative island, the inner reading (non-presuppositional) is not possible (Rizzi 1990, Beck 1995, Cresti 1995).

(95) a. How many people do you wonder whether I should talk to? (*wh*-island)
(i) For what n: there are n-many people x, such that you wonder whether I should talk to x.
(ii) *For what n: you wonder whether it should be the case that there be n-many people that I talk to.

b. Wieviele Hunde hat Karl nicht gefüttert? (negative island)
how many dogs has Karl not fed
(i) For which n: there are n dogs that Karl didn't feed.
(ii) *For which n: it is not the case that Karl fed n dogs.

In the example in (a), the 'how many' phrase has crossed a weak island, and in (b), it has crossed the negation, which is an intervenor. In both cases, the most natural interpretation is the outer reading, in which there is a presupposed group of people (a) or dogs (b) about which the question is being asked. The inner reading is difficult, if not impossible, because an intervenor occurs between the operator and its restriction. This is a typical intervention structure as characterized by Pesetsky (2000). On this account, *nani-o* must have an operator that moves to take scope, and its restriction is left lower in the structure, just as I suggested for *naze* 'why'. Note that even if *nani-o* is scrambled above the negative island, the sentence is ungrammatical.

(96) *Nani-o Taroo-wa awatetei-nai no?
what-ACC Taro-TOP panic-NEG Q
'Why is Taro not panicking?'

This is predicted if we assume that the restriction associated with *nani-o* is low in the structure, lower than negation. As we saw from the work of Beck, Cresti, and others, when a *wh*-phrase crosses an island, it cannot reconstruct back to its original position for scope. In (96), once *nani-o* crosses the negative inner island, it cannot be interpreted for scope in the lower position where the restriction is. As a result, the operator and its restriction cannot be interpreted as a whole, leading to ungrammaticality.

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This is in sharp contrast to an argument *wh*-phrase in intervention environments, in which scrambling saves the sentence (e.g., Hoji 1985, Beck 1996a, Pesetsky 2000, Ko 2005, Miyagawa 2010).

(97) a. *Hanako-sika nani-o yonde-i-nakat-ta no?
Hanako-only what-ACC read-ing-NEG-PST Q
'What did only Hanako read?'
b. Nani-o Hanako-sika yonde-i-nakat-ta no?
what-ACC Hanako-only read-ing-NEG-PST Q
'What did only Hanako read?'

With an argument *wh*-phrase, the restriction can move up as part of the *wh*-phrase, so that in (97b), the entire *wh* operator-restriction complex is interpreted above the intervenor and it receives a proper interpretation (Beck 1996a).

To account for the negative island fact, the base position of *nani-o*—both the operator and the restriction—should be lower than negation. Ochi (2014) suggests that *nani-o* is merged at V′, just above the object and the verb. For reasons that will become clear, I will instead propose that the base position of the operator-restriction complex for *nani-o* is below negation and above *v*P. Let us go over the properties noted for this construction.

(98) *Nani-o*
(i) subject to inner islands;
(ii) subject to anti-superiority;
(iii) has a causal meaning;
(iv) implies emotions such as annoyance, impatience, and surprise.

Let us pick out one of these properties as a starting point of discussion: the observation that the *nani-o* construction has a causal meaning. How can we account for this? A straightforward account would be that there is a causative construction involved. In fact, if we make the right assumption about where the causative head and its specifier occur in the structure, we will be able to account for the other properties. As we will see, we can also account for another property not listed that is uniquely identified with the causative construction.

I propose that the *nani-o* 'why' phrase is part of a causative construction with a covert causative head. In the literature on causatives, the causative head may take a number of different projections; following Hale and Keyser (1993), I assume that the analytical causative involves the causative head taking a *v*P and the lexical causative is one in which the causative head takes the VP (see also Murasugi and Hashimoto 2004, Saito 2006, Miyagawa 2012b).

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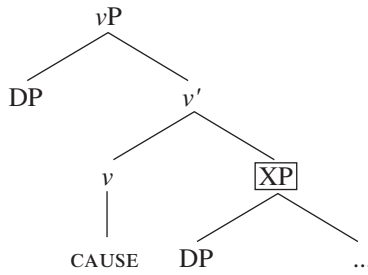
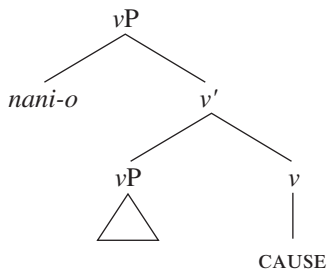
(99)



XP = VP: lexical causative
XP = *v*P: analytical causative

I will assume that the *nani* adjunct construction involves a structure parallel to the analytical causative, with a covert causative verb taking the *v*P, and *nani* in the specifier of this causative head. I assume, then, that the case marker *-o* is assigned by the covert causative head, either directly to the specifier position or to a lower position from which *nani* raises to Spec,CAUSEP. I will leave these possibilities open.

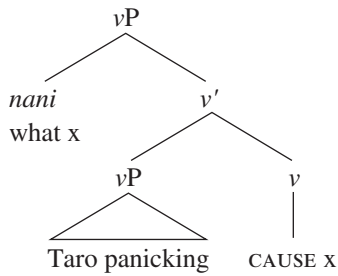
(100)



For (92a) repeated below, the meaning based on the causative analysis is "what x, cause x, Taro panicking."

(101) Taroo-wa nani-o awatete-iru no?
Taro-TOP what-ACC panick-ing Q
'Why (in the hell) is Taro panicking?'

(102)



The restriction "cause x" is the causative head portion, and it stays low in the structure while *nani*, which is the operator portion, just like *naze*, raises to

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Spec,CP to take scope. The occurrence of the causative head accounts for the causal meaning and also the implied emotional content behind the question. The separation of the operator from its restriction also predicts that this adjunct will trigger anti-superiority because it can never refer to a presupposed set of objects.

Along with the four properties noted above that the causative analysis can account for, there is a fifth. *Nani-o*, with the accusative *-o*, is subject to the double-*o* constraint, which disallows two instances of *-o* in the same clause (Harada 1973). There are two instances of this restriction, the "surface" double-*o* constraint, which is a mild form of the constraint, and a "deep" double-*o* constraint, which leads to complete ungrammaticality. The "surface" constraint is observed when one of the *-o* phrases is an adjunct while the latter is associated with the causative construction, in which both *-o* phrases are arguments. Ochi (2014) observes that *nani-o* is subject to the mild form of the double-*o* constraint, which is consistent with the idea that this is an adjunct. However, there is another phenomenon associated with *nani-o* that Ochi himself notices and that appears to reflect the "deep" double-*o* constraint. If true, this would make *nani-o* align with the causative construction. I will show that this is in fact the case. One important difference between our analysis and the previous ones is that *nani-o* is an argument, not an adjunct; it is the argument of the covert causative head. As I will show, this predicts that *nani-o* behaves like an argument accusative phrase relative to the double-*o* constraint.

Endo (2015) proposes for items such as *nani-o* a second ReasonP that occurs low in the structure. He also makes the point made by Ochi (2014) that this lower ReasonP involves a causal meaning, while the higher ReasonP has a "rationale" reading, which means "reason." In many ways our analysis is similar to what Endo has proposed. However, there are two problems with his analysis, both having to do with his apparent assumption that those items that are associated with this lower ReasonP take scope at this ReasonP. The idea that a *wh*-phrase would take scope at this lower ReasonP would give it a meaning similar to an indirect question, but very clearly, *nani-o* and others in this group take scope at Spec,CP. Second, Endo gives the following as ostensibly demonstrating the "low" ReasonP scope of *nani-o* (Endo 2015, 225).

(103) a. John-dake nani-o naiteiru no? (*John-dake* = focus)
John-only what-ACC crying Q
'Why is only John crying?'

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b. ?Nani-o John-dake naiteiru no? (*John-dake* = focus)
what-ACC John-only crying Q
'Why is only John crying?'

The grammaticality of (103a), in which *nani-o* occurs below the focus, is supposed to show that this *wh*-phrase takes scope under focus, which is lower than the "higher" ReasonP. If it is displaced into a higher position as in (103b), it is judged as marginal. The problem with this data is that, as already noted by Kurafuji (1997), *nani-o* is subject to inner islands, which indicates that it in fact is sensitive to items such as focus. In this regard, the construction Endo uses, *-dake* 'only', does not trigger an intervention effect. Thus, the following, with an argument *wh*-phrase, is fine.

(104) a. Taroo-dake nani-o yonda no?
Taro-only what-ACC read Q
'What did only Taro read?'
b. Nani-o Taroo-dake yonda no?
what-ACC Taro-only read Q
'What did only Taro read?'

As shown, the argument *wh*-phrase 'what' following or preceding the *-dake* phrase is grammatical. This is in sharp contrast to the examples of inner islands and other intervention examples that render *wh*-phrases, including the 'why' *nani-o*, ungrammatical.

In the next section, I will look at the occurrence of the case particle *-o* on *nani* in the context of the so-called double-*o* constraint. The analysis of this constraint provides further support for the analysis of *nani-o* as being part of a causative construction.

4.10 On the Double-*O* Constraint and the *Nani-o* 'What' Construction

The *nani-o* construction may occur with intransitive and transitive verbs (e.g., Kurafuji 1997, Ochi 2014).

(105) Taroo-wa nani-o awatete-iru no?
Taro-TOP what-ACC panick-ing Q
'Why is Taro panicking?'

(106) Kimi-wa Hanako-ni (?)nani-o tegami-o okutte-iru no.
you-TOP Hanako-DAT what-ACC letter-ACC send-ing Q
'Why are you sending a letter to Hanako?'

For examples such as (106), Ochi points out that the slight awkwardness has to do with the double-*o* constraint (Harada 1973), which prohibits two

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occurrences of *-o* in the same clause. There are two versions of the double-*o* constraint, which we will look at below. For now let us note, as Ochi does, that if one of the *-o* -phrases is an adjunct, the double occurrence is tolerated (cf. Kuroda 1992, chapter 6). The following illustrates this.

(107) ??Hanako-ga Taroo-o hamabe-o aruk-ase-ta.
Hanako-NOM Taro-ACC beach-ACC walk-cause-PST
'Hanako made Taro walk along the beach.'

As Kuroda points out, if the two occurrences of *-o* can be separated, for example, in a cleft construction, the construction becomes perfect.

(108) Hanako-ga Taroo-o aruk-ase-ta no-wa hamabe-o da.
Hanako-NOM Taro-ACC walk-cause-PST NMLZ-TOP beach-ACC COP
'It's along the beach that Hanako made Taro walk.'

This is fundamentally different from the case of double *-o* in the causative construction.

(109) Hanako-ga Taroo-ni/*-o hon-o yom-ase-ta.
Hanako-NOM Taro-DAT/-ACC book-ACC read-cause-PST
'Hanako made Taro read a book.'

As Kuroda and others have noted, no amount of separation saves this instance of double-*o* violation.

(110) Hanako-ga hon-o yom-ase-ta no-wa Taroo-ni/*-o da.
Hanako-NOM book-ACC read-cause-PST NMLZ-TOP Taro-DAT/*-ACC COP
'It's Taro that Hanako made read a book.'

In this regard, there is something puzzling about the *nani-o* construction. While *nani-o* appears to function as an adjunct, so that it only violates the mild version of the double-*o* constraint, there is another instance in which it becomes fully ungrammatical. As Ochi (2014) has observed, in a transitive construction, the accusative object cannot scramble to the left of *nani-o* (the two question marks for (111a) are my judgment; Ochi has just one).

(111) a. ??Kare-wa nani-o henna uta-o utat-teiru no?
he-TOP what-ACC funny song-ACC sing-ing Q
'Why is he singing a funny song?'
b. *Kare-wa henna uta-o nani-o utat-teiru no?
he-TOP funny song-ACC what-ACC sing-ing Q

This effect of scrambling only happens if the scrambled element is an accusative object. If it is, for example, a dative object, there is no problem (Ochi 2014).

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(112) Kare-wa Hanako-ni$_i$ nani-o t_i atta no?
he-TOP Hanako-DAT what-ACC met Q
'Why did he meet Hanako?'

Ochi tries to account for (111b) by proposing that *nani-o* occurs at V′, above the object-V combination. The ungrammatical order object–*nani-o*–V in (111b) is ostensibly a violation of this base order. The problem with this is that objects in Japanese freely scramble to a sentence-medial position and also to the head of the sentence. Also, if the object is moved away from *nani-o*, the sentence improves, although it is still associated with the awkwardness of having two *-o'*s in one clause.

(113) ??Henna uta-o kare-wa nani-o utat-teiru no?
funny song-ACC he-TOP what-ACC sing-ing Q
'Why is he singing a funny song?'

Below, I will propose an analysis of the double-*o* constraint that accounts for the distribution of double *-o* in the *nani-o* construction and the standard causative construction.

4.10.1 Double-*O* Constraint

The so-called double-*o* constraint (DOC) in Japanese appears in the causative construction (Harada 1973). The paradigm that demonstrates the DOC is as follows. In (114), we see that when the causative morpheme *-(s)ase* attaches to an intransitive verb stem, the external argument of the intransitive verb, which is semantically the causee of the sentence, may have the accusative *-o* or the dative *-ni*.

(114) a. Taroo-ga kodomo-**o** tat-ase-ta.
Taro-NOM child-ACC stand-cause-PST
'Taro made the child stand up.'
b. Taroo-ga kodomo-**ni** tat-ase-ta.
Taro-NOM child-DAT stand-cause-PST
'Taro let the child stand up.'

As indicated by the English translation, there is felt to be a difference in the meaning of these sentences: with the accusative *-o* the causation is felt to be "coercive" or "direct" while the appearance of the dative *-ni* implies "indirect" causation (e.g., Kuroda 1965, Kuno 1973, Shibatani 1973; see Miyagawa 1999 for a summary of works related to this topic). When we turn to causatives built on a transitive verb stem, the causee may only have the dative *-ni*.

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(115) a. *Taroo-ga kodomo-**o** hon-o yom-ase-ta.
Taro-NOM child-ACC book-ACC read-cause-PST
'Taro made the child read a book.'
b. Taroo-ga kodomo-**ni** hon-o yom-ase-ta.
Taro-NOM child-DAT book-ACC read-cause- PST
'Taro made/let the child read a book.'

The ungrammaticality of (115a) is what is referred to as the double-*o* constraint (so named by Harada 1973; see also Harada 1975 for an extension; and Kuroda 1965, 1978, 1992; and Hiraiwa 2002 among many others for relevant discussion). The "direct" and "indirect" causative meanings that we saw with case alternation in (114) are found in (115b) as well, but both meanings are present without any overt marking to distinguish them, unlike in (114).

What precisely is the nature of the DOC? One proposal is that of Harada (1973), who based it on the assumption that although the causative construction begins as a biclausal structure underlyingly (Kuroda 1965), this structure is ultimately collapsed into a monoclausal one (Harada 1973, Kuno 1973), so that the causee and the object of the transitive stem end up occupying the same VP.

(116) The double-*o* constraint (Harada 1973, 211–212)
A derivation is marked as ill-formed if it terminates in a surface structure which contains two occurrences of NPs marked with *o* both of which are immediately dominated by the same VP-node.

Let us again look at the causative construction. As noted earlier, if the stem to which the causative morpheme *-(s)ase* attaches is intransitive, the causee may be marked by the accusative *-o* or the dative *-ni*.

(117) a. Taroo-ga kodomo-**o** tat-ase-ta.
Taro-NOM child-ACC stand-cause-PST
'Taro made the child stand up.'
b. Taroo-ga kodomo-**ni** tat-ase-ta.
Taro-NOM child-DAT stand-cause-PST
'Taro let the child stand up.'

The so-called dative marking here is a postposition, as indicated by the fact that it does not allow numeral-quantifier float (Sadakane and Koizumi 1995), which is limited to DPs (Shibatani 1978).

(118) *Taroo-ga kodomo-ni san-nin tat-ase-ta.
Taro-NOM children-DAT 3-CL stand-cause-PST
'Taro made three children stand up.'

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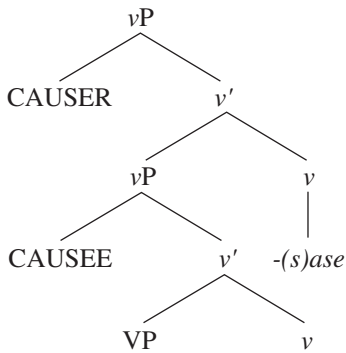
We conclude that there are two kinds of causative morpheme *-(s)ase*, one that is associated with structural accusative Case and one that is not. For the latter, the dative marking is inserted on the causee to provide Case. As for the structure of the causative construction, we will depart from the earlier work that assumed a derivation that begins as a biclausal structure and ends up as a monoclausal one. Instead, we will adopt the suggestion in Murasugi and Hashimoto (2004) and Saito (2003) that the causative morpheme selects a *v*P. We also adopt a suggestion in Hasegawa (2004) that the causative morpheme is a kind of a "small" *v*, an idea that also is reflected in Pylkkänen's (2002/2008) applicative-head analysis of dependent causative morphemes such as *-(s)ase* in Japanese.

(119)



If the *-(s)ase* merged here is the kind that assigns accusative Case, the causee receives *-o*, but if the other *-(s)ase* is chosen, the causee appears with the postposition *-ni*.[8] We do not assume any sort of restructuring, a position that is consistent with Wurmbrand's (2004) analysis of restructuring constructions in general and with the analysis of Japanese causatives in particular in Miyagawa (1999).

4.10.2 Surface DOC, Deep DOC

Harada (1975) notes that not all cases of DOC violation are created equal and that some are only a violation of a "surface constraint" (Harada 1975, 257–258), while the causative construction involves a deeper violation as well. According to Harada, the DOC as he originally formulated it in his 1973 article (see (116)) is a "surface" constraint, while there is a deeper constraint that he calls the Functional Uniqueness Principle.

(120) The Functional Uniqueness Principle (FUP)
No term of grammatical relation may be represented by more than one constituent, and conversely, no single constituent may bear more than one term of grammatical relation.

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This statement of the FUP is a precursor to more recent work in the same spirit, two examples of which are Richards's (2001, 2010) Distinctness Condition on Linearization and Alexiadou and Anagnostopoulou's (2001, 2007) subject-in-situ generalization. I will continue to use the original idea and name used by Harada.

According to Harada (1975), there are constructions, such as the causative, that violate both the "deep" constraint of the FUP and the "surface" constraint of the DOC, while in other cases, only the surface DOC is violated. As an example of the latter, he gives the *tokoro* complement construction (see also Harada 1973).

(121) Keisatu-wa sono doroboo-ga/*-o nige-yooto su-ru tokoro-o
police-TOP that burglar-NOM/-ACC run-away try place-ACC
tukamaeta.
caught
'The police arrested the burglar the moment he tried to escape.'

The occurrence of the double *-o* here leads to a DOC violation, but note that the phrases to which *-o* attaches do not share the same grammatical relation, the first *-o* phrase being the direct object while the second *-o* attaches to the entire adverbial clause headed by *tokoro*. As a result, it is possible to overcome this violation if the two instances of *-o* are put in different VPs, as in the cleft example below from Harada (1975).

(122) Keisatu-ga sono doroboo-o tukamaeta no-wa,
police-NOM that burglar-ACC caught NMLZ-TOP
(soitu-ga) nige-yooto su-ru tokoro-(o) datta.
he-NOM run away try place-ACC was
'It was the moment he tried to escape that the police arrested the burglar.'

The two occurrences of *-o* are now separated into different VPs and the sentence is fine even if both are pronounced. In contrast, the DOC violation in the causative construction cannot be saved in this way.

(123) Taroo-ga hon-o yom-ase-ta no-wa, kodomo-ni/*-o datta.
Taro-NOM book-ACC read-cause-PST NMLZ-TOP child-DAT/-ACC was
'It was a child that Taro made (him/her) read a book.'

The causative construction not only violates the DOC but also the "deep" FUP because the two occurrences of *-o* are on phrases that have the same grammatical relation of "object." From our perspective, the FUP is not violated in the *tokoro* complement because the second instance of *-o* is not structural Case, given that it occurs on an adverbial phrase. This is a common usage of *-o*. Another example of this is found in Kuroda (1978).

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(124) Taroo-ga kodomo-o hamabe-o aruk-ase-ta.
Taro-NOM child-ACC beach-ACC walk-cause-PST
'Taro made the child walk along the beach.'

Although Kuroda does not provide any grammatical marking on the sentence to indicate his judgment, his description of the sentence indicates his judgment to be that the sentence is degraded. Note that the second occurrence of *-o*, which indicates "path," is not structural Case. As Kuroda shows, the sentence becomes perfectly grammatical if one of the *-o*-marked phrases is placed in the focus position of a cleft construction.

(125) Taroo-ga hamabe-o aruk-ase-ta no-wa kodomo-o da.
Taro-NOM beach-ACC walk-cause-PST NMLZ-TOP child-ACC COP
'It is the child that Taro made (him) walk along the beach.'

There is, then, a fundamental difference between the original DOC observed in Harada (1973) for the causative construction and the type of example in (125) where one of the *-o* phrases is not a core argument. Linguists such as Poser (1982) and Shibatani (1978) have suggested that these two types of constructions be dealt with separately, the original labeled as *deep DOC* and the latter as *surface DOC*. We believe that this is a true distinction and will assume this dichotomy. Hiraiwa (2002) argues that the DOC as originally conceived is a language-specific rule. He also argues that, despite the language specificity of the surface DOC, it is subject to the universal design of language: the double *-o* is evaluated within one phase (e.g., *v*P, CP). We agree with this assessment. But what is missing from Hiraiwa's analysis is the more central phenomenon of the DOC in the causative construction—the deep DOC. As we demonstrated, the deep DOC we see in causatives is subject to the universal principle the FUP. As we have already demonstrated, the FUP operates on phases (specifically *v*P). Below I will show how the FUP also applies to the *nani-o* construction.

4.10.3 *Nani-o* and the DOC

Returning to *nani-o*, recall the distinction that Ochi (2014) observed.

(126) a. ??Kare-wa nani-o henna uta-o utat-teiru no?
he-TOP what-ACC funny song-ACC sing-ing Q
'Why is he singing a funny song?'
b. *Kare-wa henna uta-o nani-o utat-teiru no?
he-TOP funny song-ACC what-ACC sing-ing Q

In (126a) there is a mild violation of the DOC, which is consistent with the idea that *nani-o* is an adjunct, hence the construction is subject to the surface

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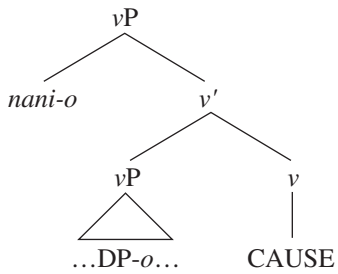
DOC. But the example in (126b), in which the accusative object 'funny song' has scrambled to the left of *nani-o*, indicates a violation that is more severe than the mild DOC violation. This indicates that this *nani-o* is not an adjunct; if it were, we would expect it to continue to only violate the surface DOC. Its argumenthood is predicted by the covert causative analysis I proposed. Moreover, if the object is moved further up the structure to the head of the sentence, the violation returns to the milder DOC.

(127) ??Henna uta-o kare-wa nani-o utat-teiru no?
funny song-ACC he-TOP what-ACC sing-ing Q
'Why is he singing a funny song?'

This shows that the severe DOC becomes operative only in the sentence-medial position, what I am proposing to be the *v*P headed by the covert causative head.

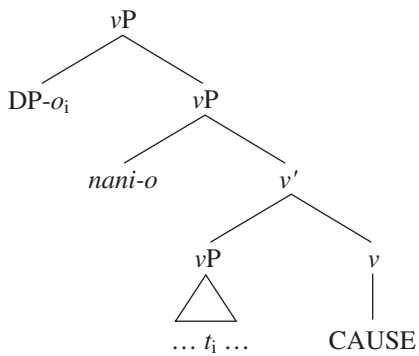
The structure for *nani-o* is proposed to be the following for a sentence with a transitive verb.

(128)



Note that in this structure, the two occurrences of *-o* are not in the same *v*P, hence they do not violate the deep FUP, but instead only the surface DOC. Now, suppose that the scrambling of the accusative object adjoins the object to the higher *v*P.

(129)



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In this adjunction structure, the two occurrences of *-o* are now in the same *v*P, assuming that adjunction makes the lower *v*P a segment, not a maximal projection (May 1985). This results in a violation of the FUP, which is a more severe form of the DOC. If the accusative object moves to the head of the sentence, it is not part of the same *v*P as *nani-o*, and the sentence only violates the mild DOC, as we saw earlier and repeated below.

(130) ??Henna uta-o kare-wa nani-o utat-teiru no?
funny song-ACC he-TOP what-ACC sing-ing Q
'Why is he singing a funny song?'

4.11 Conclusion

In this chapter I applied ideas from Strong Uniformity to 'why' questions across languages. I began with the two analyses of 'why' questions: the external-merge (at Spec,CP) analysis and the movement analysis. I showed that the externally merged option is available only for languages that allow the δ-feature of focus at C (e.g., English, Portuguese). This is different from the distinction between *wh*-in-situ and *wh*-movement languages. Chinese, which is a typical *wh*-in-situ language, has an externally merged 'why' *zenme* which is similar to the English externally merged phrase *how come*. Chinese is a Category II language in which δ-features stay at C. In contrast, Japanese, being a Category I language, has the focus feature at T, and this prevents Japanese from having a 'why' that is externally merged at Spec,CP. I also proposed a structure for 'why' questions: it consists of an operator that binds a variable in a "because" clause. This proposal is based on the semantic work of Beck (1996b) and the syntactic work on the distribution of 'why' by Shlonsky and Soare (2011). It is the operator portion that is typically pronounced as 'why'. I argued that in languages that have the δ-feature of focus at T (e.g., Japanese), there is an option to merge 'why' lower in the structure, and move it to the position of the operator prior to the operator moving to Spec,CP to take scope. This gives rise to anti-intervention, as observed in Japanese and Korean. Finally, I looked at the special case of 'why' questions expressed with 'what' + accusative case. This form of 'why' question is structurally different in that the 'what' occurs lower in the structure. Furthermore, it is the argument of a covert predicate of causation. As one piece of evidence for this from Japanese, I showed that we find the same effect of the double-*o* constraint with this 'what' as we find with the regular causative construction in Japanese.

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5 *Ga/No* Conversion, Strong Uniformity, and Focus

5.1 Introduction

In Strong Uniformity, we assume that the grammatical agreement features and discourse-configurational features form a universal set that gets expressed in some fashion in all languages. The distribution of these two types of grammatical features—ϕ-feature and δ-feature—predicts at least four different types of languages: (I) ϕ-feature on C, δ-feature on T; (II) δ-feature on C, ϕ-feature on T; (III) both ϕ-feature and δ-feature on T; and (IV) both ϕ-feature and δ-feature on C. These are given below with representative languages.

(1) Some predicted languages
Category I: C_{ϕ}, T_{δ} – Japanese
Category II: C_{δ}, T_{ϕ} – Chinese, English
Category III: C, $T_{\phi/\delta}$ – Spanish
Category IV: $C_{\phi/\delta}$, T – Dinka

We saw that in Spanish, while the topic feature may occur on T as shown, the focus feature stays on C.

As shown, Japanese, a Category I language, has its ϕ-feature at C and its δ-feature at T. In this chapter, I will look at so-called *ga/no* conversion from the perspective of Strong Uniformity. I will show that recent work on *ga/no* conversion provides further evidence for the way that universality and variability are defined by Strong Uniformity. In particular, we will see evidence that the presence of a grammatical feature triggers movement, and that lack of grammatical features prevents movement. In Miyagawa (2010), I argued that when agreement occurs, movement takes place. Part of what makes agreement possible is activation based on Case (Chomsky 2001). One issue that I did not address in the 2010 work is, what is the activation for δ-features? This becomes a relevant question since Strong Uniformity considers ϕ-features and

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δ-features to be two sides of the same coin, hence, they should in principle be guided by the same sort of conditions. I will show that Case in fact plays the role of activation for the δ-feature of focus in Japanese. I will first present an analysis of *ga/no* conversion in Japanese. Then, in the second half of the chapter, I will take up the issue of activation for the δ-feature of focus. I begin with the discussion of *ga/no* conversion and D-licensing. The following text, through section 5.6, is from Miyagawa (2013). I thank the English Linguistic Society of Japan for letting me use the article.

5.2 Miyagawa (2013)[1]

Harada (1971) brought our attention to the fact that in Japanese, the subject of relative clauses and noun complements may be marked with the genitive *-no* instead of the nominative *-ga*; he named it *Ga/No* Conversion.

(2) Hanako-ga/-no katta hon
Hanako-NOM/GEN bought book
'the book that Hanako bought'

As Harada also noted, while the nominative is always possible, there are restrictions on the occurrence of the genitive. For example, unlike the nominative subject, the genitive subject does not sound natural if certain elements intervene between it and the verb (Harada 1971, 80).

(3) a. kodomotati-ga minna-de ikioi-yoku kake-nobotta kaidan
children-NOM together vigorously run-climb up stairway
'the stairway which those children ran up together vigorously'
b. *kodomotati-no minna-de ikioi-yoku kake-nobotta kaidan
children-GEN together vigorously run-climb up stairway

In (3b), which contains a genitive subject, the intervention of 'together' and 'vigorously' between this subject and the verb leads to ungrammaticality.

Also, Dubinsky (1993) shows that scrambling, which is common in Japanese, is usually not possible across a genitive subject (I have changed the original example to avoid a transitivity restriction violation).

(4) geki-de$_i$ musume-ga/*-no t_i odotta koto
play-in daughter-NOM/-GEN danced fact
'the fact that my daughter danced in the play'

I will show that (3), noted by Harada, and (4) are the same phenomenon when we look at them through the lens of Strong Uniformity.

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Finally, Akaso and Haraguchi (2010) observe another restriction on the genitive subject, namely, a focus element on the subject precludes the genitive from occurring.

(5) Taroo-**dake**-ga/*-no nonda kusuri
Taro-only-NOM/-GEN took medicine
'medicine that only Taro took'

I will demonstrate that Akaso and Haraguchi's observation follows from the typological status of Japanese as a Category I language. I will also incorporate an observation by Ochi (in press) to show that the focus feature is activated by Case. Our account will be based on so-called D-licensing of the genitive case marking and the extension of the D-licensing analysis proposed in Miyagawa (2012a). I begin with the explanation of the D-licensing approach to *ga/no* conversion.

5.3 D-Licensing of the Genitive Case

The D-licensing analysis (e.g., Bedell 1972; Miyagawa 1993, 2008, 2011; Ochi 2001) is based on the fact that in Japanese, the genitive typically occurs in nominal environments.

(6) [$_{DP}$ Hanako-**no** gakkai-de-**no** Taroo-**no** hihan]
Hanako-**GEN** conference-at-**GEN** Taro-**GEN** criticism
'Hanako's criticism of Taro at the conference'

In this example, two arguments and an adjunct within the noun phrase headed by the noun 'criticism' must bear the genitive case marker. The D-licensing approach equates the genitive marking on the subject in *ga/no* conversion environments with this phenomenon of genitive in noun phrases, assuming that such noun phrases are headed by D.

What precisely is the nature of the alternation between the nominative and genitive case marking? On the surface the alternation appears to be optional, and this is what Hiraiwa (2001, 2005) and Watanabe (1996) assumed. In Miyagawa (2008), following the analysis of Dagur by Hale (2002), I argued that the structures for the two case markers, nominative and genitive, are different, so that the alternation is not due to optionality, the choice is specified by structure. The intuition, following Hale's work, is that while the nominative case marking occurs in a full CP, the genitive case marking occurs in a smaller clause, Aspectual Phrase, as noted for the Dagur genitive subject. In Miyagawa (2011), I revised this proposal somewhat and suggested that the smaller structure for the genitive case is a TP (Akaso and Haraguchi [2011] came to the same conclusion independently).

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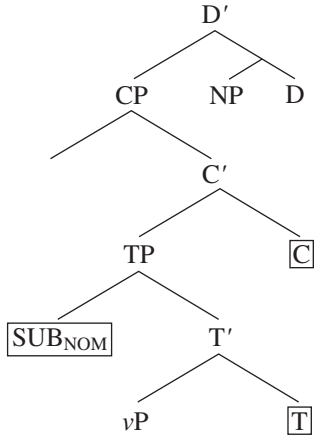
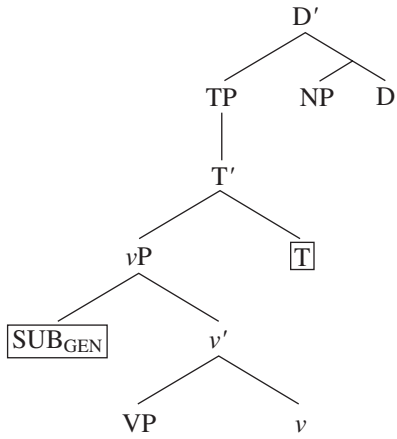
(7) Nominative: CP
Genitive: TP

(8) a. Nominative



b. Genitive



(Miyagawa 2011)

There are several points to note about the difference between these two structures. In (8a), which contains the nominative subject, the structure is a full CP, and the C selects the T. As a result, this T is fully active and able to license the nominative on the subject. Because this T has a full set of features, presumably having inherited them from C (e.g., Chomsky 2005, 2008; Richards 2007; Miyagawa 2010), it triggers movement of the subject to its specifier (Miyagawa 2010). Given that T is the closest head that can license case marking on the subject, D, outside the CP, cannot license case marking on the subject. In contrast to this, in (8b) D directly selects a TP and, because the T is not selected

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by C, the T does not contain formal features and is unable to license nominative case. As a result, D reaches in to license the case marking on the subject, leading to the subject having the genitive case marker. Also, because T lacks formal features, it does not trigger movement of the subject to its specifier (Miyagawa 2010, 2011), leaving the subject in the original Spec,*v*P position.[2]

The fact that the genitive subject does not move accounts for the grammaticality judgment that Harada (1971, 80) noted; the examples are repeated below.

(9) a. kodomotati-ga minna-de ikioi-yoku kake-nobotta kaidan
children-NOM together vigorously run-climb up stairway
'the stairway which those children ran up together vigorously'
b. *kodomo tati-no minna-de ikioi-yoku kake-nobotta kaidan
children-GEN together vigorously run-climb up stairway

The adjuncts 'together' and 'vigorously' occur between Spec,TP and Spec,*v*P. In (9a), which has the nominative subject, the construction is grammatical because the nominative subject is in Spec,TP, having moved there across the adjuncts. But in (9b), which contains the genitive subject, there is no reason for the genitive to move from its original Spec,*v*P position because T is inert for the purpose of movement; the fact that the genitive subject occurs to the left of the adjuncts shows that it has moved without the need to do so, and this is what causes the ungrammaticality (Miyagawa 2011).[3]

In Miyagawa (2011), one argument for distinguishing the structures for *-ga* and *-no* has to do with scopal difference. As noted in Miyagawa (1993) (see also Ochi 2001), the two types of subjects lead to different scope relations.

(10) a. [[Taroo-ka Hanako]-ga kuru] riyuu-o osiete.
Taro-or Hanako-NOM come reason-ACC tell.me
'Tell me the reason why either Taro or Hanako will come.'
*reason > Taro or Hanako, *Taro or Hanako > reason*
b. [[Taroo-ka Hanako]-no kuru] riyuu-o osiete.
Taro-or Hanako-GEN come reason-ACC tell.me
'Tell me the reason why Taro or Hanako will come.'
reason > Taro or Hanako, Taro or Hanako > reason

In (10a), with the nominative case marking, the disjunction expression 'Taro or Hanako' scopes under the head noun 'reason', so that this structure can only mean that the speaker is asking for the reason why only Taro or Hanako will come. (10b), which has the genitive case marking on the subject, is ambiguous

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between this reading and a reading in which the disjunction takes scope over 'reason'. The latter means 'Tell me the reason why Taro will come or the reason why Hanako will come.' This distinction in scope parallels what we see in English.

(11) Someone thinks that every student failed the test.

(11) only has the reading of *someone* > *every student* (May 1977). However, if the subordinate clause is an infinitive, that is, a TP, inverse scope is possible (e.g., Johnson 2000).

(12) Someone wants [$_{TP}$ to order every item in the catalogue]. (ambiguous)

From this, we see that while CP is a barrier to quantifier raising, TP isn't, which is consistent with the CP/TP distinction drawn for nominative and genitive subjects.[4]

5.4 A Different Kind of Genitive: Genitive of Dependent Tense

Watanabe (1996) and Hiraiwa (2001, 2005) present a fundamentally different approach to *ga/no* conversion in which the licensing head is C for both the nominative and the genitive. This is made possible, according to them, because of the special status of the verbal inflection, which they describe as "subjunctive/adnominal." In their analysis, *ga/no* conversion is truly an optional alternation (but see Hiraiwa 2005 for a slightly different view). In order to motivate their C-licensing approach, they present counterexamples to the D-licensing approach. One counterexample that Hiraiwa (2001) gives is the following.

(13) John-wa [ame-ga/-no yam-u made] ofisu-ni ita.
John-TOP rain-NOM/-GEN stop-PRS until office-at be-PST
'John was at his office until the rain stopped.'

As Hiraiwa correctly notes, there is no nominal head to license the genitive case marker here since 'until' is a postposition. This, then, is an instance in which the genitive is not licensed by a D head, yet it is grammatical (but see Maki and Uchibori 2008).

In response to this type of counterexample, H. Takahashi (2014) points out that these counterexamples tend to contain an unaccusative verb ('stop$_{INTR}$' above). As she notes, if we consider an example similar to the above, but with an unergative verb, it is ungrammatical.

(14) John-wa [oogoede Mary-ga/-*no sakeb-u made] odotta.
John-TOP loudly Mary-NOM/-GEN shout-PRS until danced
'John danced until Mary shouted loudly.'

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Indeed, other counterexamples by Hiraiwa (2001, 2005) include the following, both with unaccusative verbs.

(15) a. Kono atari-wa [hi-**ga/-no** kureru nitsure(-te)]
around here-TOP sun-NOM/-GEN go down.PRS.ADN(-as)
hiekondeku-ru.
get colder-PRS
'It gets chillier as the sun goes down around here.'
b. John-wa [toki-**ga/-no** tatu-to tomoni]
John-TOP time-NOM/-GEN pass.PRS-C with/as
Mary-no koto-o wasurete-itta.
Mary-GEN fact-ACC forget-go.PST
'Mary slipped out of John's memory as time went by.'

One counterexample, in fact the original counterexample to D-licensing given by Watanabe (1996), is different from Hiraiwa's examples in that it contains a transitive verb.

(16) John-wa [Mary-**ga/-no** yonda yori] takusan-no hon-o
John-TOP Mary-NOM/-GEN read.PST.ADN than many-GEN books-ACC
yonda.
read-PST
'John read more books than Mary did.' (Watanabe 1996, 396)

Although Watanabe's contention is that this is a counterexample to D-licensing, it appears in fact to be an instance of D-licensing, with a covert nominal element that furnishes the D head. This is what is argued by Maki and Uchibori (2008) and, from a semantic point of view, by Sudo (2009). We can see this by the fact that a CP-level adverb is not allowed with the genitive subject, just as we saw for the typical cases of the D-licensed genitive subject (Miyagawa 2012a).

(17) John-wa [saiwaini Mary-ga/?*-no yatotta yori] takusan-no
John-TOP fortunately Mary-NOM/-GEN hire-PST.ADN than many-GEN
gakusei-o yato-e-nakat-ta.
students-ACC hire-can-NEG-PST
'John was unable to hire more students than Mary fortunately hired.'

This leaves the question of what precisely is the nature of Hiraiwa's counterexamples—why are they fine with unaccusative verbs but not with other types of verbs? Such a distinction is not found with regular *ga/no* conversion in which there is an overt nominal head (or in the case of Watanabe's case, a covert nominal head, if we are correct in our analysis of this counterexample).

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5.4.1 Dependent Tense and the Genitive

Fujita (1988) identified a kind of genitive that has exactly the distribution of Hiraiwa's counterexamples as explicated by H. Takahashi (2014). I will begin with a discussion of the *toki* 'when' temporal clause to demonstrate Fujita's observations. As shown below, a *toki* temporal clause does not license the genitive.

(18) [Kodomo-ga/*-no waratta toki], tonari-no heya-ni ita.
child-NOM/-GEN laughed when next-GEN room-in was
'When the child laughed, I was in the next room.'

If, however, a case marker attaches to the *toki* phrase, genitive is possible (Fujita 1988, Miyagawa 1989).

(19) [Kodomo-ga/-no waratta toki]-**o** omoidasita.
child-NOM/-GEN laughed time-ACC recalled
'I recalled the time when the child laughed.'

Whitman (1992), upon seeing these facts, suggested that *toki* is a C when it is in an adjunct clause such as in (18), but it is an N when it is in an argument position such as in (19). Let us assume this. Being an N, it can licence the standard *ga/no* conversion.

Even in the adjunct CP clause, genitive is possible if the verb is unaccusative (Fujita 1988).

(20) [Kodomo-ga/-no kita toki], tonari-no heya-ni ita.
child-NOM/-GEN came when next-GEN room-in was
'I was in the next room when the child came.'

(21) [Kaze-de doa-ga/-no aita toki] daremo kizukanakatta.
wind-by door-NOM/-GEN opened when no one noticed
'When the door opened due to wind, no one noticed.'

It is also possible to have this special instance of the genitive with the passive.

(22) Watasi-wa [kodomo-no home-rare-ta toki] hontouni uresii kimoti
me-TOP child-GEN praise-PASS-PST when really happy feeling
datta.
was
'When my child was praised, I was really happy.'

As I noted in Miyagawa (2012a), the distribution of this special genitive case matches the distribution of the so-called genitive of negation in Slavic (e.g., Babby 1980, Pesetsky 1982, Bailyn 1997, Babyonyshev 1996). This genitive in Slavic occurs as an alternate to the nominative when the verb is unaccusative or passive; it also can occur on the object of a transitive verb.

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The contrast between unaccusative and unergative is illustrated below for Russian (Pesetsky 1987).

Unaccusative subjects

(23) a. Griby zdes' ne rastut.
mushrooms.NOM here NEG grow.3PL
b. Gribov zdes' ne rastët.
mushrooms.GEN here NEG grow.3SG
'Mushrooms don't grow here.'

Unergative subjects

(24) a. V pivbarax kul'turnye ljudi ne p'jut.
in beer.halls cultured people.NOM NEG drink.3PL
b. *V pivbarax kul'turnyx ljudej ne p'ët.
in beer.halls cultured people.GEN NEG drink.3SG
'In beer halls, cultured people don't drink.'

In accusatives and passives, the verbal structure contains the "weak *v*" (Chomsky 2000, 2001), hence the licensing conditions of the relevant genitive in Japanese and Slavic include weak *v*, plus an additional condition. In Slavic, it is negation; in Japanese, it is apparently dependent tense (Miyagawa 2012a).[5]

(25) Licensing of the non-D genitive
Genitive is licensed in the environment of *v* and:
negation (Slavic) or dependent tense (Japanese).

The fact that negation may occur in matrix as well as subordinate clauses makes it possible in Slavic for the genitive to occur in the matrix clause, but dependent tense is strictly a subordinate-clause phenomenon, hence the genitive of dependent tense in Japanese only occurs in subordinate environments. It cannot occur in matrix clauses.

(26) Doa-ga/*no aita.
door-NOM/-GEN opened
'The door opened.'

What is dependent tense? Ogihara (1994, 256) points out that the semantic content of tense in the subordinate clause is determined "in relation to structurally higher tenses." The following example demonstrates this.

(27) a. [Hanako-ga te-o ageta toki] kore-o watasite kudasai.
Hanako-NOM hand-ACC raised when this-ACC give please
'Please hand this (to her) when Hanako (lit.) raised her hand.'
b. [Hanako-ga te-o ageru toki] kore-o watasite kudasai.
Hanako-NOM hand-ACC raise when this-ACC give please
'Please hand this (to her) when Hanako (lit.) raises her hand.'

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In (27a), the inflection on the verb within the adverbial clause is that of past tense, yet the event it refers to occurs at a future time. The past inflection simply indicates a sequence in which first Hanako raises her hand and then an event of giving something to her should take place. In (28b), the verb within the temporal clause has the "present" inflection, but again denotes a future event. In this sentence, it simply refers to an event of Hanako raising her hand either before or at the same time as an event of giving something to Hanako. Ogihara (1994, 257) points out that "a present tense morpheme in a temporal adverbial clause shows that the episode described in it is simultaneous with (or is subsequent to) the event or state described in the matrix clause." What we see, then, is that in these temporal constructions, the subordinate tense is somehow not fully specified as tense, in the sense that it is dependent on the higher tense for semantic determination.

If a clause has non-dependent tense, the genitive is not possible. The 'because' or 'if' clause has independent tense, as shown below.

(28) Hanako-ga kekkon-suru/*kekkon-sita kara/nara,
Hanako-NOM marry/married because/if
kanozyo-no kekkonsiki-ni de-tai.
her-GEN wedding-DAT attend-want
'Because/if Hanako is getting married/*got married, I'd like to attend her wedding.'

These clauses in turn do not license the genitive.

(29) a. Hanako-ga/*-no kuru kara, uti-ni ite-kudasai.
Hanako-NOM/-GEN come because home-at be-please
'Because Hanako will come, please be at home.'
b. Ame-ga/*-no futta kara, miti-ga nurete-iru.
rain-NOM/-GEN fall because street-NOM wet-is
'Because it rained, the streets are wet.'

We saw earlier that the D-licensed genitive occurs in TP without CP. Because T is not selected by C, it is incapable of assigning nominative case to the subject, which opens the way for D to license the case on the subject, and this case is the genitive. What about the genitive of dependent tense (GDT), illustrated in (19)–(22)? Given that it is not licensed by D, there is no reason to assume that the clause is less than a CP. In fact, we can see that it is a CP by the fact that a CP-level adverb is possible with a GDT.

(30) [Saiwaini ame-no yanda toki] kodomotati-o soto-de asob-ase-ta.
fortunately rain-GEN stopped when kids-ACC outside play-cause-PST
'When the rain fortunately stopped, I made the kids play outside.'

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To summarize the differences between the two types of genitive:

(31) Two types of genitive in Japanese
D-licensed genitive: occurs in TP without CP; occurs with all kinds of predicates
Genitive of dependent tense: occurs in CP; occurs with unaccusatives and passives and on objects of certain transitive verbs.

As we will see, this difference is crucial for explaining the examples noted by Akaso and Haraguchi (2010), in which they show that the genitive is ungrammatical in the environment of focus.

Another correlation between the genitive of negation in Slavic and the GDT in Japanese is that both can occur on objects of transitive verbs. The following shows this for Slavic.

(32) a. Ja ne polučal pis'ma.
I NEG received letters.ACC.PL
b. Ja ne polučal pisem.
I NEG received letters.GEN.PL
'I did not receive letters.'

This genitive is not possible on the subject of transitive verbs.

(33) a. Studenty ne smotrjat televizor.
students.NOM NEG watch.PL TV
b. *Studentov ne smotrit televizor.
students.GEN NEG watch.SG TV
'Students are not watching TV.'

The correlation with Japanese is not direct, as the object of a normal transitive verb cannot be marked with the genitive.

(34) Taroo-ga hon-o/*-no yomu toki, ...
Taro-NOM book-ACC/-GEN read when
'When Taro reads a book, ...'

Where we do find such genitive marking is with the object of stative predicates. As is well-known, the object of a transitive predicate is often marked with the nominative instead of the accusative.

(35) Hanako-ga eigo-ga hanas-e-ru.
Hanako-NOM English-NOM speak-can-PRS
'Hanako can speak English.'

Now, to see that the GDT can mark the object in this kind of stative environment, observe the following examples (Miyagawa 2012a).

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(36) a. [Ziroo-ga eigo-ga wakar-anakat-ta toki]
Jiro-NOM English-NOM understand-NEG-PST when
Hanako-ga tasukete-ageta.
Hanako-NOM help-out.PST
'When Jiro didn't understand English, Hanako helped out.'

b. *[Ziroo-no eigo-ga wakar-anakat-ta toki]
Jiro-GEN English-NOM understand-NEG-PST when
Hanako-ga tasukete-ageta.
Hanako-NOM help-out.PST

c. ?*[Ziroo-no eigo-no wakar-anakat-ta toki]
Jiro-GEN English-GEN understand-NEG-PST when
Hanako-ga tasukete-ageta.
Hanako-NOM help-out.PST

d. [Ziroo-ga eigo-no wakar-anakat-ta toki]
Jiro-NOM English-GEN understand-NEG-PST when
Hanako-ga tasukete-ageta.
Hanako-NOM help-out.PST

In (36a), both the subject and the object have nominative case, and there is no problem. In the ungrammatical (36b) and (36c), the subject has the genitive case; just as with the genitive of negation in Russian, we do not expect the GDT to occur on the subject of a transitive predicate. The striking example is (36d). In this example the subject has the nominative case and the object has the genitive case. This example is predicted to occur on our analysis because it is an instance of the GDT, and this genitive occurs with T that is selected by C. Though it is dependent tense, being selected by C, this T is capable of licensing the nominative on the subject. The *v* here is weak because the entire predicate is stative and the *v* does not assign accusative case. This *v*, in conjunction with the dependent tense, can license the genitive on the object.[6,7]

5.5 Strong Uniformity and Scrambling

I now turn to the problems posed at the outset concerning certain distinctions between nominative-marked and genitive-marked subjects. As I will show, Strong Uniformity and related assumptions can account for these distinctions.

Recall the minimal pair below, noted by Harada (1971).

(37) a. kodomotati-ga minna-de ikioi-yoku kake-nobotta kaidan
children-NOM together vigorously run-climb up stairway
'the stairway which those children ran up together vigorously'

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b. *kodomo tati-no minna-de ikioi-yoku kake-nobotta kaidan
children-GEN together vigorously run-climb up stairway

The fundamental assumption behind Strong Uniformity is the idea that all formal features, including the discourse-configurational ones, start out at C. T by itself is devoid of any formal features that interact with syntactic operations to begin with, and it inherits whatever features it has from C. It is only when such inheritance occurs that T is active syntactically and can, for example, attract the subject to its specifier—the so-called EPP movement. The nominative subject in (a) is in Spec,TP, having moved there because T, being selected by C, has the full set of features and therefore is active, which triggers movement of the subject to its specifier (Miyagawa 2010). In (b), the genitive subject, being D-licensed, is in TP without CP, so that this T carries no formal features, making it inert as far as requiring movement is concerned. The reason why (b) is degraded is that the genitive subject has moved from its Spec,*v*P position despite the lack of need to do so; this is an economy violation (Miyagawa 2011).

We can make the same argument for why scrambling, which usually occurs freely in Japanese, is blocked when the subject is genitive (Dubinsky 1993).

(38) geki-de$_i$ musume-ga/*-no t_i odotta koto
play-in daughter-NOM/-GEN danced fact
'the fact that my daughter danced in a play'

The ungrammaticality of the genitive subject with scrambling cannot be because the genitive subject must occur on the left edge. As Nakai (1980) showed, it is possible for items such as the temporal adverb to occur to the left of the genitive subject.

(39) [**kyonen-made** danro-**no** atta] heya
last.year-until fireplace-GEN existed room
'the room where there was a fire place until last year'

In Miyagawa (2001), I argued, following a suggestion in Kuroda (1988), that scrambling may move an element to Spec,TP. Unlike Kuroda, who suggested that this movement is strictly optional, I argued that this movement is EPP movement. According to this, the word orders SOV and OSV are structurally equivalent, as shown below.

(40) a. Hanako-ga piza-o tabeta.
Hanako-NOM pizza-ACC ate
'Hanako ate pizza.'
b. Piza-o Hanako-ga tabeta.
pizza-ACC Hanako-NOM ate
'Hanako ate pizza.'

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(41) a. [$_{TP}$ Hanako-ga$_i$ [$_{vP}$ t_i piza-o tabe]-ta]
Hanako-NOM pizza-ACC eat-PST
b. [$_{TP}$ piza-o$_i$ [$_{vP}$ Hanako-ga t_i tabe]-ta]
pizza-ACC Hanako-NOM eat-PST

In (a) the subject has moved to Spec,TP, and in (b), the object has moved to Spec,TP. In Miyagawa (2001), I give evidence that something must occupy the specifier of TP, commonly called the EPP requirement of T, and this is what we see above. In (a), the subject meets this requirement; in (b) the object meets the requirement. The latter is possible in Japanese, but not in English, because Japanese, unlike English, does not have subject agreement, given that it is a discourse-configurational language without agreement at T. This opens the way for essentially anything to move into Spec,TP to meet the EPP requirement.

Why is scrambling not possible if the subject is genitive, as we saw in (38)? The reason is that for the genitive subject to be D-licensed, there cannot be a CP structure, only a TP structure. T is not selected by C, so it does not contain any formal features that relate to syntax (such as nominative case). As I argued in Miyagawa (2010), unlike in Miyagawa (2001), the EPP requirement only arises if the T is selected by C and has formal features relevant to syntax. Scrambling an element as in (38) is therefore an unnecessary movement, and, unless there is some reason to move, it violates the principle of economy of derivation.

There is one exception to the rule against scrambling with genitives, and it is when the genitive itself is scrambled (thanks to Naoyuki Akaso for pointing this out).

(42) a. [Hanako-ga furansugo-no hanas-e-ru] koto
Hanako-NOM French-GEN speak-can-PRS fact
'the fact that Hanako can speak French'
b. [furansugo-no$_i$ Hanako-ga t_i hanas-e-ru] koto
French-GEN Hanako-NOM speak-can-PRS fact

This genitive is the GDT, which can only occur on internal arguments, such as the object in the example above, or the "subject" of an unaccusative verb. What we saw earlier about the GDT is that, unlike the D-licensed genitive, it occurs in CP. This means that the T that occurs in (42) is selected by C, and has inherited formal features. We can see this by the fact that the subject *Hanako* has the nominative case marker. This also means that the T may trigger movement, and in the scrambled case, it is the genitive object that has moved into Spec,TP to meet the EPP requirement of T.

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5.6 Focus and Genitive

Let us now turn to the problem noted at the beginning of the chapter, which is that the genitive becomes ungrammatical if there is focus (Akaso and Haraguchi 2011).

(43) Taroo-**dake**-ga/*-no nonda kusuri
Taro-only-NOM/-GEN took medicine
'medicine that only Taro took'

Without the focus marker, the construction is perfectly grammatical.

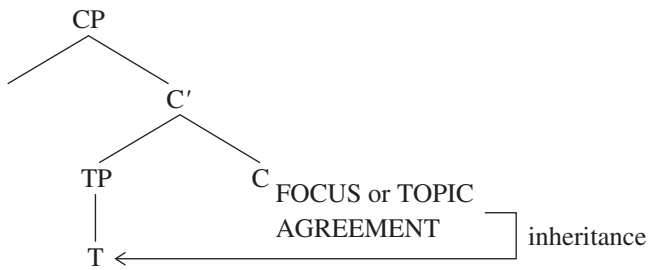
(44) Taroo-ga/-no nonda kusuri
Taro-NOM/-GEN took medicine
'medicine that Taro took'

Why should focus matter in determining when the genitive can or cannot occur? To add to the mystery, in a later work, Akaso and Haraguchi (2012) point out that the genitive is fine even with the focus marker if the verb is unaccusative.

(45) umi-dake-ga/-no mieru heya
ocean-only-NOM/-GEN see.can room
'the room from which only the ocean can be seen'

Under the Strong Uniformity approach, all languages begin with agreement and topic/focus features on C. The variation occurs with the choice of which feature is inherited by T.

(46) Agreement-based languages



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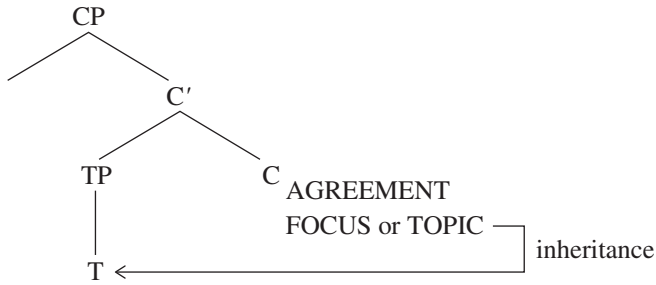
(47) Discourse-configurational languages



Under this approach, the occurrence of agreement or focus/topic requires that a full CP occurs, so that these features will find the appropriate initial host at C. For agreement, we can see this in the ECM construction (Chomsky 2005).

(48) Mary expects John to come to the party.

The lower clause is a TP, not a CP, so that there is no agreement (or Case). Likewise, in a discourse-configurational language, the occurrence of focus (or topic) is an indication that there is a full CP, with C having initially hosted the topic/focus feature before it is inherited by T.

This explains why the occurrence of focus prohibits the genitive. Focus requires the clause to be a CP, but the genitive, which is D-licensed, can only occur in a TP without a CP.

(49) D-licensed genitive and focus
A D-licensed genitive cannot occur with focus because focus requires CP but the D-licensed genitive cannot occur in CP.

This analysis also predicts that the genitive should be fine with focus if it is the genitive of dependent tense. As already noted, Akaso and Haraguchi (2012) notice precisely this point.

(50) umi-dake-ga/-no mieru heya
ocean-only-NOM/-GEN see.can room
'the room from which only the ocean can be seen'

The following shows that the CP adverb 'fortunately' is fine with the GDT.

(51) saiwaini umi-dake-ga/-no mieru heya
fortunately ocean-only-NOM/-GEN see.can room
'the room from which fortunately only the ocean can be seen'

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5.6.1 Focus at *v*

One issue that I did not take up in Miyagawa (2010) is the question of whether discourse-configurational features such as focus may occur not only at C, but also at *v*. Focus marking combined with *ga/no* conversion allows us to explore this issue in an interesting way. Recall that the following is ungrammatical because the occurrence of the focus marker *dake* 'only' requires the CP structure to occur.

(52) Taroo-dake-ga/*-no nonda kusuri
Taro-only-NOM/-GEN took medicine
'medicine that only Taro took'

Because the genitive, if it were to occur here, would be on the subject of a transitive verb, it could not be the GDT. Therefore, it would have to be the genitive that is D-licensed, but D-licensing requires a TP without CP, which is not possible here because of the focus marking. Now note the following contrast.

(53) a. *Hanako-dake-no furansugo-no hanas-e-ru koto
Hanako-only-GEN French-GEN speak-can-PRS fact
'the fact that only Hanako can speak French'
b. Hanako-no furansugo-dake-no hanas-e-ru koto
Hanako-GEN French-only-GEN speak-can-PRS fact
'the fact that Hanako can speak only French'

(53a) is ungrammatical for the same reason as (52): the genitive must be D-licensed, but the focus marker forces there to be a CP structure, which prevents D-licensing. In (53b), there is genitive marking on the object, and given that it occurs with the focus marker, we assume that it is the GDT. Earlier, we saw that the GDT occurs in CP, unlike the D-licensing kind; if that is the case here, then D-licensing of the genitive should be out. Yet, in (53b), the genitive on the subject is fine. This genitive cannot be the GDT because it occurs on the subject of a transitive verb. How can it be grammatical?

I suggest that in (53b), the focus marker is licensed by a focus feature not on C, but on *v*.

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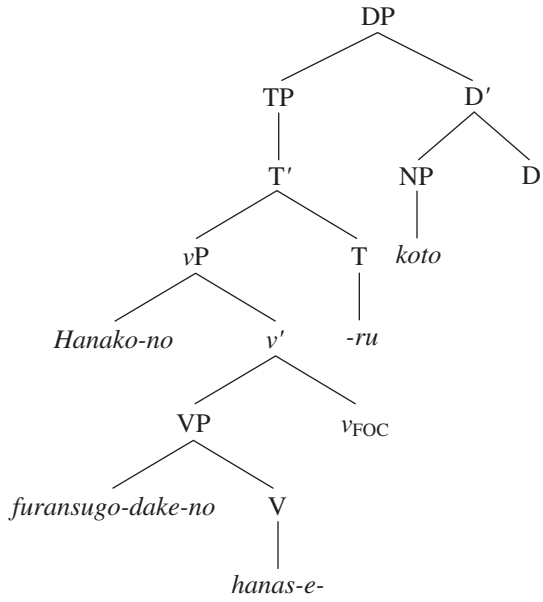
(54)



The focus feature on *v* licenses the focus marker on the object 'only French'. Since this focus feature occurs on the phase head *v*, the requirement that the grammatical feature appears on a phase head is met. This, in turn, makes it possible for the higher structure to simply be a TP without a CP, which makes it possible for the genitive on the subject to be D-licensed.[8]

One issue that comes up in the analysis given above is the status of *v*. If it is the case that the focus feature occurs on the *v*, and that is what licenses the focus marker on the object, this *v* is a phase head, just like C. The phasehood of this *v* is also reflected in the fact that it licenses Case, in the form of genitive case.[9] In Miyagawa (2011), I suggested that phasehood is defined by the ability to assign Case.

(55) Case identifies phase heads. (Miyagawa 2011, 1273)

Hence, this *v* counts as a phase head because it licenses Case. The fact that the *v* can host a focus feature is simply a consequence of this way of identifying phases.[10]

5.7 Activation of the δ-Feature

As noted earlier, Akaso and Haraguchi (2011) observed that focus precludes genitive case on the subject in certain *ga/no* conversion environments. Their example is repeated below.

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(56) Taroo-dake-ga/*-no nonda kusuri
Taro-only-NOM/-GEN took medicine
'medicine that only Taro took'

From the perspective of Strong Uniformity, this makes sense on the D-licensing analysis of *ga/no* conversion. To license the genitive on the subject, the relative clause must be a TP, not a CP. But to license the focus marking, there must be a C above the TP that furnishes this grammatical feature. This conflict leads to ungrammaticality. We saw that if the predicate is an unaccusative, the focus-genitive combination is allowed (Akaso and Haraguchi 2012). This is because the unaccusative allows another kind of genitive, the genitive of dependent tense, which may occur in a full CP.

(57) umi-dake-ga/-no mieru heya
ocean-only-NOM/-GEN see.can room
'the room from which only the ocean can be seen'

Up to this point, D-licensing and the GDT together with Strong Uniformity can straightforwardly account for the distribution of focus in genitive-subject constructions. However, Ochi (in press) makes an important new observation that he casts as a challenge to the D-licensing approach to the focus construction and genitive subjects. He notes that by the Strong Uniformity analysis, focus should be ruled out everywhere in the relative clause if it is the D-licensed kind, not just on the genitive subject. This is because the genitive subject requires the relative clause to be a TP, not a CP, so that there should be no place within the TP to license focus. Yet, as he notes, the following is grammatical (I only give the genitive version).

(58) kinoo/sukosi-dake Taroo-no nonda kusuri
yesterday/little-only Taro-GEN took medicine
'the medicine that Taro took only yesterday/only a little'

In this example, there is genitive marking on the subject, and this has to be the D-licensed genitive because the predicate is transitive. At the same time, the focus marking *-dake* occurs on the adjunct 'yesterday'/'a little'. Why is this construction grammatical with this combination? This is an argument/adjunct distinction, and I will argue, following Miyagawa, Nishioka, and Zeijlstra (2016), that this distinction points to the fact that the δ-feature at least of focus requires activation, and what activates it is Case, just like ϕ-feature agreement. This is a particularly important result since it endorses the Strong Uniformity notion that ϕ-features and δ-features are computationally equivalent for narrow-syntax operations. I will first present the analysis of negative-sensitive items in Japanese by Miyagawa, Nishioka, and Zeijlstra, who give an argument that the two types of features undergo activation by Case.

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5.7.1 Focus and Case (Miyagawa, Nishioka, and Zeijlstra 2016)

Like other languages, Japanese allows fragment answers to questions.

(59) a. Dare-ga kita no?
who-NOM came Q
'Who came?'
b. Hanako.

Miyagawa, Nishioka, and Zeijlstra (2016) look at negative-sensitive items (NSIs)—items that require negation—in Japanese to see whether they can occur in this context of short answers. A central issue they take up is whether a NSI has a focus feature or not. Two NSIs they look at are the exceptive *XP-sika* 'only' and the *wh-mo* N-word.

(60) a. Taroo-wa piza-sika tabe-nakat-ta.
Taro-TOP pizza-only eat-NEG-PST
'Taro at only pizza.'
b. Hanako-wa nani-mo tabe-nakat-ta.
Hanako-TOP what-MO eat-NEG-PST
'Hanako didn't eat anything.'

One test that Miyagawa, Nishioka, and Zeijlstra (2016) use for focus-hood is the VP adverb *umai/zyoozuni* 'well', which typically occurs on the left edge of the verb phrase. Note the distinction between the two NSIs relative to this adverb.

(61) *Sika-nai* 'only': focus
a. Taroo-wa {zyoozuni} keeki-o {zyoozuni} tukut-ta.
Taro-TOP skillfully cake-ACC skillfully made
'Taro baked a cake well.'
b. Taroo-wa {*zyoozuni} keeki-sika {zyoozuni} tukur-anakat-ta.
Taro-TOP skillfully cake-only skillfully make-NEG-PST
'Taro baked only a cake well.'
(cf. Yanagida 1996, 2005; Yoshimoto 1998; Watanabe 2002, 2004)

(62) *Wh-mo* N-word: no focus
Taroo-wa {zyoozuni} nani-mo {zyoozuni} tukur-anakat-ta.
Taro-TOP skillfully what-MO skillfully make-NEG-PST
'Taro did not make anything well.'

(61a) shows that the accusative object without any special marking except case marking may occur in the VP following the VP adverb, presumably in its original complement position, or it may occur before the VP adverb, apparently having undergone optional scrambling from within the verb phrase. In (61b), the same object is accompanied by the exceptive *XP-sika* 'only', and

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we see that this object cannot occur after the VP adverb, which indicates that the object with *sika* obligatorily undergoes movement from within the verb phrase to a higher position. Miyagawa, Nishioka, and Zeijlstra, following a number of studies in the literature, propose that the exceptive *XP-sika* is associated with a focus feature that forces it to undergo movement (cf. Yanagida 1996, 2005; Yoshimoto 1998; Watanabe 2002, 2004). In contrast, as we see in (62), the other NSI, *wh-mo* may stay inside the verbal phrase, indicating that it is not associated with the focus feature that triggers obligatory movement.

Turning to fragment answers, the two NSIs behave differently as fragment answers (Miyagawa, Nishioka, and Zeijlstra 2016, Nishioka 2000, Watanabe 2004).

(63) a. Dare-o mita no?
who-ACC see Q
'Who did you see?'
b. *John-sika.
Intended: 'Only John.'
c. John-sika mi-nakat-ta.
John-only see-NEG-PST
'I only saw John.'

(64) Dare-mo.
who-MO
'No one.'

(63) shows that the exceptive *XP-sika* cannot occur as a fragment answer (63b), instead requiring the entire sentence with negation to be pronounced (63c). In contrast, *wh-mo* is fine as a fragment answer, as we see in (64). Since we have already seen that *XP-sika* has focus, requiring it to undergo movement, while *wh-mo* does not, the first approximation for fragment answers is that a NSI cannot occur as a fragment answer if it is associated with focus.

(65) Generalization on fragment answers and focus
A NSI associated with focus cannot occur as a fragment answer.

Below, we will refine this slightly to narrow the notion of "associated with focus."

We saw in (63b) above that the *XP-sika* exceptive cannot occur as a fragment answer. However, Miyagawa, Nishioka, and Zeijlstra (2016) note that

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the following, similar to an example pointed out earlier by Kuno (1995, 170), is acceptable (Kuno uses *iya* 'no' to begin the answer).

(66) a. Kimi, nando betonamu-ni it-ta koto aru no?
you how.many.times Vietnam-to go-PST experience have Q
'How many times have you been to Vietnam?'
b. Itido-sika.
once-only
'Only once.'

Miyagawa, Nishioka, and Zeijlstra note that the crucial difference between the ungrammatical (63b) and this grammatical example is that the former is an argument fragment answer while the grammatical example involves an adjunct answer. See their paper for other examples of this argument/adjunct distinction. If the generalization in (65) is correct that a NSI with focus is unable to occur as a fragment answer, it must be the case that an adjunct *XP-sika* is not associated with focus in some relevant sense. Thus, for the "movement" test, we would expect an adjunct *XP-sika* to behave the same as *wh-mo* in not being required to undergo movement, so that it can stay inside the verbal phrase. This expectation is met (Miyagawa, Nishioka, and Zeijlstra 2016). Unlike the argument *XP-sika*, which must move out of the verb phrase (the example is repeated below as (67)), an adjunct *XP-sika* may stay within the verb phrase.

(67) Taroo-wa {*zyoozuni} keeki-sika {zyoozuni} tukur-anakat-ta.
Taro-TOP skillfully cake-only skillfully make-NEG-PST
'Taro baked only a cake well.'

(68) Taroo-wa {zyoozni} keeki-o {zyoozni} itido-sika {zyoozni}
Taro-TOP skillfully cake-ACC skillfully one time-only skillfully
tukur-e-nakat-ta.
make-can-NEG-PST
'Taro was able to make cake well only once.'

As we see in (68), the adjunct *itido-sika* 'only once' may occur after the VP adverb 'skillfully', indicating that it may stay inside the verb phrase. Nothing is required to move, as shown by the fact that even the object may stay within the verb phrase, being able to occur after 'skillfully'.

So the correlation given in (65) holds up: a NSI associated with focus cannot serve as a fragment answer, but a NSI not so associated in the relevant sense is free to occur as a fragment answer. But now, we have an issue to contend with. Regardless of whether the *XP-sika* is an argument or an adjunct, it is associated with the meaning of focus and with the stress pattern typical of

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narrow focus. Miyagawa, Nishioka, and Zeijlstra (2016) argue that this argument/adjunct distinction involving a focalized phrase is a reflection of the way a δ-feature is activated by Case in a discourse-configurational language. The way in which Case licenses a δ-feature cannot be exactly the same as for a ϕ-feature; the ϕ-feature itself may occur together with Case (Chomsky 2001), but that cannot be the case for δ-features because δ-features may occur with adjuncts as well as arguments. Miyagawa, Nishioka, and Zeijlstra's proposal is that in a discourse-configurational language an uninterpretable δ-feature—they limit their discussion to focus feature—may lower to T, and the agreement that ensues is between this δ-feature at T and an XP in the δ-feature's search domain that holds the relevant interpretable feature (focus). Miyagawa, Nishioka, and Zeijlstra argue that this agreement between the uninterpretable and the interpretable features requires the interpretable feature to be activated. They argue that this activation is the same as the activation required for ϕ-feature agreement. This reinforces the Strong Uniformity idea that ϕ-features and δ-features are computationally equivalent, because they are both activated by Case.

The Case activation that underlies focus agreement cannot be exactly the same as for ϕ-feature agreement. If the focus item (*-sika*) is on the external argument, nominative case at T can activate the interpretable focus feature on the subject, just as with ϕ-feature agreement. The problem arises when the focus item is in the object position. How does the focus feature on this object get activated? An important point to remember is that the focused NSI in the object position must move out of the verb phrase. Where does it move to? In Miyagawa and Arikawa (2007), Miyagawa (2010), and Miyagawa, Nishioka, and Zeijlstra (2016), it is shown that this object focused item moves to the TP region. Thus, the object NSI enters into agreement with the uninterpretable focus feature on T. This means that activation must take place in such a way that T and the object position are linked up. How can we do this?

We begin with the standard assumption that the accusative case on the object is checked by *v*. This is insufficient for establishing a "Case" relation between the object and T. How can *v* and T be related? Whatever this relation is, how can T–*v* express the Case relation when *v* has already checked the accusative case inside the verbal phrase? For the question of how we can link *v* and T, I will simply assume that *v* raises to T (e.g., Koizumi 1995, Miyagawa 2001; see Kishimoto 2008 among others for a view that V-*v*-to-T does not occur in Japanese). For the issue of Case, I will utilize a system called Case Agreement.

In Austronesian languages, a phrase is marked as topic, and the verb shows Case Agreement with this topic. This is called voice marking in the literature.

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The following Tagalog data is taken from Rackowski (2002) (see her work for an extensive list of references on this topic).

(69) a. Bi-bilh-**in** ng bata **ang tela** sa palenke para sa Compl. of V
PRF-buy-ACC CS child ANG cloth DAT market P DAT
Nanay
mother
'The child will buy **the cloth** at the market for mother.'

b. B-**um**-ili **ang bata** ng tela sa palenke para sa Ext. arg.
NOM.PRF-buy ANG child CS cloth DAT market P DAT
Nanay
mother
'**The child** bought cloth at the market for mother.'

c. **I**-t-in-akbo ni Cory **ang asawa** para sa High appl.
OBL-ASP-run CS Cory ANG spouse P DAT
pagkapresidente.
president
'Cory run for president **for her husband**.'

d. **I**-p-in-ang-balot ko sa libro **ang diyaryo**. High appl.
OBL-ASP-ANG-wrap I DAT book ANG newspaper
'I wrapped the book **with the newspaper**.'

e. B-in-igy-**an** ko **ang bawat ina** ng laruan. Low appl.
ASP-give-DAT I ANG each mother CS toy
'I gave **each mother** a toy.'

In the literature, we find an analysis of the voice-marking agreement as agreement with the theta role on the topic. However, Rackowski (2002) argues that the agreement is with the particular case marking on the topic. She provides the following table for the various agreement forms.

(70) Case agreement in Tagalog (adopted from Rackowski 2002)

Predicted system		Tagalog marking
Type of argument	Type of case	Voice marker
Complement of verb	Accusative	-in (i-, -an)
External argument	Nominative	-um-
High applicative	Dative/oblique	i-
Low applicative	Dative	-an

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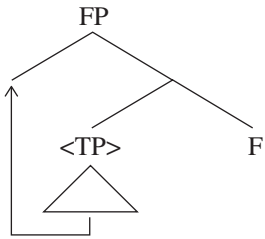
By Rackowski's analysis, topic agreement clearly exhibits the effect of Case in the form of Case Agreement. What is clear is that the agreement occurs on the sentence-initial verb at T. This Case Agreement is "visible" even after a Case is checked, such as the accusative case.

Let us suppose that Case Agreement is what underlies activation of the focus feature in Japanese. The following is from Miyagawa, Nishioka, and Zeijlstra (2016).

(71) Activation condition of the focus feature for agreement
An interpretable focus feature, [iFOC], on an XP becomes visible for Agree with some higher head carrying [uFOC] in T or any other functional head that inherits this probing feature from C if and only if the XP is in another (case–)agreement relation with the head.

Returning to fragment answers, Miyagawa, Nishioka, and Zeijlstra adopt the analysis of short answers developed by Merchant (2004) based on his analysis of sluicing. The idea is that there is a Focus phrase above the TP to which the focalized element that ends up as the short answer is raised.

(72)



The TP is then deleted to give the surface form of a fragment answer. This holds for all cases of fragment answers in an agreement-based language. It also holds for adjunct focused short answers, as we saw in (66). In a discourse-configurational language such as Japanese, there is an additional issue: the discourse-configurational property is that the feature of topic/focus can be inherited by T, and the XP that enters into agreement with this feature moves to Spec,TP. However, if making a fragment answer requires that the fragment moves to Spec,CP and the TP is then deleted, the focused item that ends up in Spec,TP, such as an argument *XP-sika*, would get deleted along with the TP. Therefore, an argument *XP-sika* simply cannot occur in a fragment answer because it is always deleted as part of the TP. This is illustrated below.

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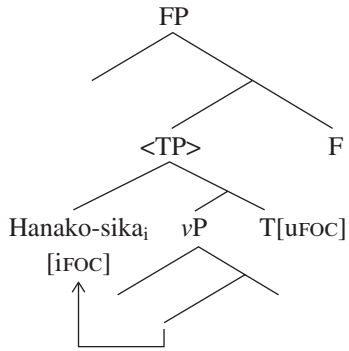
(73)



One might wonder, though, why an argument *XP-sika* cannot further raise to FP. Various reasons may apply, including anti-locality effects, but we point out that raising to a left-peripheral, CP-internal position (like FP) must also be triggered by [uTOP] or [uFOC] features (albeit without simultaneous case agreement taking place). However, if [uFOC] is inherited by T, it is no longer present above, and no trigger is present to further raise the argument *XP-sika*. That is not a problem for an adjunct *XP-sika*, which does not enter into Case Agreement with the uFOC feature at T, hence it is free to move to a position from which it can function as a fragment answer.

5.7.2 *Ga/No* Conversion, Focus, and Case Agreement

We can now answer the question raised by Ochi, why is focused *-no* subject bad but *-dake* on an adjunct is fine? The examples are repeated below.

(74) Taroo-dake-ga/*-no nonda kusuri
Taro-only-NOM/-GEN took medicine
'medicine that only Taro took'

(75) kinoo/sukosi-dake Taroo-no nonda kusuri
yesterday/little-only Taro-GEN took medicine
'the medicine that Taro took only yesterday/only a little' (Ochi, in press)

The subject genitive case with *-dake* is ungrammatical because this is a D-licensed genitive, which requires that the structure it occurs in be a TP without a CP. The interpretable focus feature on the genitive subject with *-dake* enters into Case Agreement, hence it is activated. It needs an uninterpretable focus feature to agree with, but no such uninterpretable feature exists due to the absence of C. The adjunct with *-dake* in (75) is fine because, being an adjunct, it does not enter into Case Agreement, hence it is not required to enter into an agreement relation with an uninterpretable focus feature. As such, it is free to represent the focus meaning independently.

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We can see that focus marking can occur independent of C in examples such as the following.

(76) a. Taroo-dake-no heya
Taro-only-GEN room
'room only for Taro'
b. Hanako-koso-no nebari
Hanako-really-GEN tenaciousness
'Hanako's real tenaciousness'

These are nominal phrases without any C to carry an uninterpretable focus feature. As shown, it is possible to have focus marking on the elements within the nominal phrase.

There is no Case Agreement in a nominal phrase, hence the focus feature on the XPs simply carries the meaning of focus without any need to undergo agreement and movement. We can see this in the following.

(77) zyoozu-na yasai-dake-no ryoori
skillful vegetable-only-GEN dish
'a dish skillfully done with only vegetables'

Yasai 'vegetable', which is the complement of *ryoori* 'dish', stays in its original position despite the focus marking, as shown by the fact that it occurs after 'skillful'. In the sentential version, we saw that the object occurs outside of the verbal phrase, in front of 'skillfully'. If we change the order above to the "moved" order, the examples becomes degraded.

(78) ??yasai-dake-no zyoozu-na ryoori
vegetable-only-GEN skillful dish

This is due to the fact that scrambling does not occur within a nominal phrase (Kishimoto 2006).

5.7.3 *Ga/No* Conversion and Focus on Internal Arguments

I gave an analysis of why the genitive subject cannot have focus. Under Strong Uniformity, the focus δ-feature originates at C, and is inherited by T in a Category I language such as Japanese. However, under D-licensing, the occurrence of the genitive subject is only possible if there is no C, hence the genitive subject cannot occur with focus. We also saw that this restriction only holds for the subject; an adjunct phrase within a genitive-subject clause may occur with focus. The reason is that an argument such as the subject enters into Case Agreement with T, which activates the interpretable focus feature on the subject with focus. This requires the interpretable focus feature to enter into agreement with the uninterpretable focus feature at T. If there is no Case

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Agreement, as is the case with adjuncts, the focus feature on the adjunct need not enter into agreement, so it is free to occur independent of whether there is C or not.

This raises the question, what about internal arguments? Are they subject to the same restriction against having focus as the subject? There is one confound here that we must keep in mind: the Transitivity Restriction (e.g., Harada 1971, Watanabe 1996) prohibits an object from occurring with the genitive subject.

(79) kyoo Hanako-ga/*-no Taroo-o mita basyo
today Hanako-NOM/-GEN Taro-ACC saw place
'the place where Hanako saw Taro today'

The fact that a focused object is equally unacceptable is presumably due to this same restriction.

(80) kyoo Hanako-ga/*-no Taroo-dake mita basyo
today Hanako-NOM/-GEN Taro-only saw place
'the place where Hanako saw only Taro today'

What about the internal arguments of a ditransitive verb? In Miyagawa (2003), I pointed out that a dative argument appears to be subject to a similar restriction as the accusative object is. We have to ensure that we are dealing with the dative argument as opposed to a PP (Miyagawa and Tsujioka 2004); one way to do this is by using a floating numeral quantifier, which only occurs with an argument.

(81) kyoo Hanako-ga/*-no gakusei-ni san-nin okutta tegami
today Hanako-NOM/GEN student-DAT 3-CL sent letter
'the letter that Hanako sent to three students today'

The one construction in which focus is allowed on an internal argument is one with a stative predicate where both the focused object and the subject have the genitive case marking, as we saw earlier. The example is repeated below.

(82) Hanako-no furansugo-dake-no hanas-e-ru koto
Hanako-GEN French-only-GEN speak-can-PRS fact
'the fact that Hanako can speak only French'

I suggested earlier that the occurrence of this focus on the internal argument 'French' is licensed by the focus δ-feature occurring on *v*, not on C. Because D-licensing only pertains to the subject, there should be no restriction on the object if it can be licensed by the focus feature on *v*, and this is what we see in this example.

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5.8 *Ga/No* Conversion and Interpretation

The genitive case marking on the subject in *ga/no* conversion indicates that this subject occurs in a TP without a CP. Because T is not selected by C, it is defective in ways that are similar to the T in the ECM construction in English: the T does not have a Case-assigning feature, lacks the EPP, and there is no scrambling. On the other hand, if the subject takes the nominative case marker, that means that the T is selected by a C, and all of those properties lacking in genitive-subject constructions are present—C has a Case feature that T inherits, assigning the nominative case; EPP raises the external argument to Spec,TP; and scrambling applies freely. A question we might ask is, if there are such significant differences syntactically between the two types of subjects, are there semantic differences? In English, infinitival clauses, which arguably contain a defective T, are known to have severe restrictions on tense interpretation (e.g., Stowell 1982). In Miyagawa (2011), I show that the defective T of genitive-subject constructions also imposes a restriction on interpretation. In particular, it appears that genitive-subject constructions are aspectually limited to stative interpretations, whereas the nominative-subject counterpart has the full range of aspectual interpretations including eventive readings.

The following well-known example demonstrates the distinction between eventive and stative readings, involving the inflection *-ta* (e.g., Teramura 1984, Abe 1993, Kinsui 1994, Ogihara 2004).

(83) [yude-ta] tamago
boil-PST egg
(i) 'the egg which (I) boiled' (eventive reading)
(ii) 'the boiled egg' (stative reading)

The first reading contains the event of having boiled the egg, and *-ta* here is used as past tense to indicate that this event occurred prior to utterance time. The second reading is often described as a stative modifier in which the state holds at the time of utterance, so that *-ta* here is typically analyzed as indicating not past tense, but rather the result that obtains from a past event. Another way to view the stative nature of the second reading is that the nominal version points to the result of some event (boiling the egg). This is similar to what Kratzer (1996) argues for the difference between the purely stative *cool* and the adjectival passive *cooled*.

(84) a. *cool*: $\lambda x \lambda s[\text{cool}(x)(s)]$
b. *cooled*: $\lambda x \lambda s \exists e[\text{cool}(x)(s) \wedge s = f^{\text{target}}(e)]$

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For the latter, there is an event, and the adjectival passive expresses the result of this event.

We can see the idea of result in the following pair taken from Miyagawa (2011).

(85) a. [Simi-ga tuita syatu]-o kiteiru.
stain-NOM had shirt-ACC is.wearing
'He's wearing the shirt that sustained a stain.'
b. [Simi-no tuita syatu]-o kiteiru.
stain-GEN had shirt-ACC is.wearing
'He's wearing the shirt that has a stain.'

In (85a), which has the nominative case marker, the relative clause indicates that there was an event of the shirt getting stained. In (85b), while the event of staining is included in the meaning, the focus is on the result of this eventuality, and the most natural interpretation is that the shirt being worn has a stain at the time of the utterance. The latter is stative in aspect due to the focus on the resultative meaning. It is odd with an adverb that emphasizes the event as opposed to the result.

(86) [Totuzen simi-ga/*-no tuita syatu]-o misete kudasai.
suddenly stain-NOM/-GEN had shirt-ACC show.me
'Please show me the shirt that was suddenly stained.'

The adverb 'suddenly' puts focus on the event of the shirt getting stained, and is in conflict with the stative meaning of genitive-subject constructions. As we can see, this adverb is fine with the nominative subject.

The stative nature of the genitive subject finds further support from a corpus study by Kim (2009). Kim (2009) looked at four novels from the 1970s to the 1990s,[11] and from these works she identified 1,143 examples of subjects in relative clauses or noun-complement clauses. Of these, 572 were genitive subjects and 571 were nominative subjects, so half were genitive and half were nominative, a result which by itself does not directly shed light on our question about the interpretation of clauses containing a genitive subject. However, when she broke down the examples into the types of predicates that occurred in the clause—adjective, unaccusative, and transitive/unergative—a striking pattern emerged. The following gives the percentage of genitive subjects for each of the predicate types.

(87) Adjective: 91%
Unaccusative: 56%
Transitive/Unergative: 17%

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As shown, 91% of the relevant occurrences of adjectives are associated with a genitive subject as opposed to a nominative subject. Adjectives are by nature stative, hence are conducive to fitting into the "substantive" interpretation of a nominalized form.[12] Below is an example of an adjective with a genitive subject taken from her work.

(88) kami-no nagai hito
hair-GEN long person
'a person whose hair is long'

Unaccusatives take on a stative reading readily because of the lack of an agent that would encourage an eventive reading. Transitives and unergatives are least likely to readily take on a stative reading because they contain an agent. There are in fact native speakers who resist the genitive subject with highly eventive transitive and unergative verbs. In the case of a transitive or unergative verb, the genitive subject and the concomitant nominalized predicate would need to have a resultative interpretation. If an adverb, for example, discourages such resultative reading, *-no* is degraded.

(89) Wazato kodomo-ga/*-no kowasita kabin-o misete-kudasai.
intentionally child-NOM/-GEN broke vase-ACC show.me-please
'Please show me the vase that the child broke intentionally.'

The adverb *wazato* 'intentionally' goes with an agent, so that in this example, it puts the focus on the actual event of breaking the vase instead of on the result or the experience of having broken the vase. As shown, while the nominative subject is fine, the genitive subject is highly degraded, if not ungrammatical.

5.9 Conclusion

Strong Uniformity characterizes ϕ-features and δ-features as computationally equivalent. In chapter 3, we saw how the subject *pro* in Chinese takes advantage of this equivalency, being given ϕ-features by its local T/AGR as the first option, but if it does not take that option, it raises to Spec,CP where it takes on the δ-feature of topic. In this chapter we observed another instance where the two types of grammatical features are equivalent. Using the D-licensing approach to *ga/no* conversion, we looked at the distribution of focus. While the genitive subject does not allow focus, an adjunct with focus is allowed in the same clause as the genitive subject. This argument/adjunct distinction also shows up in fragment answers with a negative-sensitive focus item. I argued that this distinction arises from the notion that the δ-feature, in this case focus,

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looks for an interpretable focus feature that has been activated. Just as with the goal of ϕ-features, this activation takes place through Case. Since Case only occurs on arguments, this accounts for the argument/adjunct asymmetry we see in the distribution of focus in *ga/no* conversion environments and also in fragment answers. In turn, this gives further credence to the idea that ϕ-features and δ-features are computationally equivalent, both requiring activation by Case.

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6 Concluding Remarks

We began with two questions:

- How are natural languages the same?
- In what ways can they be different?

To answer these questions, I focused on one corner of human language—the grammatical-feature system—that plays the central role in the narrow-syntax operations of agreement and movement. Extending the proposal in Miyagawa (2010), I argued that every language has the same set of grammatical features, and this set includes both ϕ-features and the δ-features of topic and focus. Where languages may vary is in the location of the grammatical features in the structure and how these features interact with the elements in the structure. Looking at human language in this "Strong Uniformity" fashion allowed us to have greater empirical coverage and, I believe, deeper understanding of certain linguistic phenomena than if we were to limit ourselves to the typical ϕ-feature agreement found in Indo-European and other languages. Most importantly, it allowed us to unify agreement and agreementless languages under a single, coherent system. This system not only identifies what is the same across languages, but it also has built into it a way to account for the variations that give each language its unique set of properties.

I assumed that grammatical features begin at C, and sometimes are inherited by T (e.g., Chomsky 2005, 2007; Richards 2007; Miyagawa 2010). This gives two possible sites where a grammatical feature resides and triggers some sort of operation. Just these two options lead to a variety of possibilities. Most of these operations target an element within the local TP, such as agreement with the subject or topicalizing an argument to Spec,CP. There were some surprising findings. In a Category I language such as Japanese, it is predicted that ϕ-feature agreement occurs at C, despite the fact that Japanese is a stereotypical agreementless language. We indeed found such a ϕ-feature in the form of person agreement in the politeness marking system. This ϕ-feature agreement

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does not target an element in the TP, but rather an element that corresponds to the addressee. This is a form of allocutive agreement, something that is found in some dialects of Basque and Tibeto-Burman languages. I suspect that we will find more instances of allocutive agreement now that we know what to look for.

The Chinese subject *pro* differs sharply from the subject *pro* in Romance and Japanese. Its antecedent within the same sentence must be a subject, which is different from other languages that allow a subject, an object, or other items to function as the antecedent. Also, as noted by J. Huang (1984), *pro* in Chinese observes strict locality in that only the closest subject can function as its antecedent within the sentence; such a strict locality does not hold for *pro* in other languages. The Chinese subject *pro* is able to refer to an entity in the discourse, but in a highly restricted way, and this inter-sentential reference is only possible if the topic position is not taken up by some other entity. In other languages *pro* can refer to something in the discourse without much effort so long as the reference is clear, and there is no restriction on what can occur in the topic position. If our analysis is correct, the Chinese *pro* takes advantage of the Strong Uniformity consequence that the ϕ-feature and the δ-feature are computationally equivalent: it either receives the ϕ-feature of person or the δ-feature of topic, and the choice between the two accounts for its unusual behavior. What is important to note is that although the Chinese *pro* behaves in a fundamentally different fashion from *pro* in Romance and Japanese, its behavior is fully compatible with the system that underlies the general grammatical-feature system across all languages.

I presented a number of other phenomena that reflect some aspect of Strong Uniformity. It is my hope that there will be others that will be discovered, and as we find them, we will have a deeper understanding of how languages, agreement and agreementless, operate with uniformity and diversity.

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Notes

Chapter 1

1. In the literature, there is a debate as to what triggers last-resort movement. For "EPP"-type A-movement, some linguists have argued that Case is responsible (Bošković 1997, 2002 and Martin 1999). There are other studies that assume that movement correlates with agreement (e.g., Chomsky 2000, 2005, 2007, 2008; Kuroda 1988; Miyagawa 2010; Pesetsky and Torrego 2001).

2. See Sano (2005) for related discussion on the acquisition of topicalization in Japanese.

3. See McCloskey (2000) for an analysis that has *wh*-movement (A′-movement) being compatible with FQs in West Ulster English.

4. An anonymous reviewer notes that in (19b), if the resumptive pronoun does not occur, one gets a contrastive focus interpretation instead of a topic interpretation. If what I say in chapter 4 is correct, that the focus feature in Spanish stays at C, this may mean that the contrastive focus is due to A′-movement instead of A-movement.

5. The most well-known kind of agreement at C is what we find in languages such as West Flemish.

(i) a. Kpeinzen **dan-k** (ik) morgen goan.
I-think that-I (I) tomorrow go
'I think that I'll go tomorrow.'
b. Kpeinzen **da-j** (gie) morgen goat.
I-think that-you (you) tomorrow go
'I think that you'll go tomorrow.'
(Haegeman 1992, Haegeman and van Koppen 2012)

The complementizer agrees with the subject, thus indicating agreement at C. At the same time, there is subject-verb agreement. I will not deal with this type of agreement at C. See, for example, Miyagawa (2010) and Haegeman and van Koppen (2012) for possible analyses.

6. In the *wh*-movement construction, the agreement is impoverished; there is no person agreement. In certain tenses the agreement disappears altogether. See van Urk (2015).

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7. More recently, Kim (2002, 2006) argues that the intervention effect is due to the focus feature on the *wh*-phrase being blocked from being associated with the focus feature on C by another focus-bearing item. Beck (2006) presents a formal semantic analysis based on the assumption that intervention is an instance of the failure of focus agreement. See also Miyagawa (2010).

Chapter 2

1. In most dialects of Basque that have allocutive agreement, the agreement is limited to 2nd person singular colloquial masculine and feminine. This is similar to Japanese, where the allocutive (*-des-/-mas-*) is limited to just one register of speech—in Japanese, only the formal. For detailed treatment of agreement in Basque, see, for example, Arregi and Nevins (2012) and Laka (1993).

2. In the appropriate contexts, the allocutive agreement is obligatory, another sign that it is a true form of agreement.

3. An anonymous reviewer raises the issue of why the allocutive probe at C isn't blocked by the occurrence of the other grammatical feature, the δ-feature at C. Apparently the restriction against the allocutive probe occurring at C has to do with overt occurrence of some element, such as a complementizer or a question particle.

4. The pattern of grammaticality in (19)–(20) holds only for *wh*-questions. For yes-no questions, which may also have the question particle *ka*, the *ka* can appear with or without *-mas-*.

(i) Kimi-wa asita soko-ni iku ka?
you-TOP tomorrow there-to go Q
'Are you going there tomorrow?'

If we turn this into a *wh*-question, the question without *-mas-* is degraded.

(ii) *Kimi-wa asita doko-ni iku ka?
you-TOP tomorrow where-to go Q
'Where are you going tomorrow?'

5. For some speakers, the contrast is clearer if the sentences are turned into yes-no questions.

(i) Bill-wa [$_{CP}$ dare-ga kuru **ka**] itta no?
Bill-TOP who-NOM come Q said Q
'Did Bill say who will come?'

(ii) ?*Bill-wa [$_{CP}$ dare-ga kuru **ka**] donatta no?
Bill-TOP John-NOM come Q shouted Q
'Did Bill shout who will come?'

6. In Souletin, the allocutive agreement occurs with both colloquial and formal forms, but in Japanese, the allocutive agreement only occurs with the formal (polite) form. I presume that this is simply a difference in the types of agreement, like the variety of ϕ-feature agreements found across languages.

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7. The sa head is analyzed by Speas and Tenny (2003) as equivalent to a predicate head. This, then, parallels the bridge verb construction that takes *ka*. In both cases a predicate, or a predicate-like head, licenses *ka*. Thanks to a reviewer for raising this point about the parallel between bridge verbs and *-mas-*.

8. One issue that remains is that while the rhetorical *ka* can license an indefinite NPI, as we saw, it cannot license other negative-sensitive items. The following shows that exceptive *-sika* 'only' and minimizer *rokuna* 'decent' cannot be licensed by this *ka*.

(i) *Hanako-sika kuru ka!
Hanako-only come Q
'Only Hanako will come!'

(ii) *Rokuna-mono-o taberu ka!
decent-thing-ACC eat Q
'I don't eat anything decent!'

This suggests that the negation in rhetorical questions is not the full-fledged negation we get with the negative morpheme *-nai*. It is possible that rhetorical *ka* in conjunction with the question environment is licensing the indefinite NPI. I leave this problem open.

9. See Heycock (2006) for criticism of Hooper and Thompson; see Sawada and Larson (2004) for a formal-semantic characterization of assertion in reason clauses. In a series of works, Haegeman (e.g., 2006, 2010) and Haegeman and Ürögdi (2010) argue that the asserted/non-asserted distinction follows from proposals that postulate movement in those structures that block root transformations. Temporal adjunct clauses, for example, have been argued to involved the movement of the *wh*-phrase (*when*, etc.) (e.g., Larson 1987, 1990). Haegeman argues that this movement causes an intervention effect for root transformations such as NCP and topicalization, in turn suggesting, as Hooper and Thompson do, that there is no inherent and independent distinction to be made between root and non-root clauses. I will support this general approach of using syntactic intervention to account for the absence of root transformations in certain environments. Also see Kastner (2015) for an approach to Hooper and Thompson's categorization of verbs and complements based on categorial distinctions among the complements (DP vs. CP).

10. See Emonds (2004, 2012) for an extension of his earlier work that addresses Hooper and Thompson (1973). He draws data from English and German, which are in many ways similar. These languages do not show the kind of limited distribution we see with allocutive agreement in Japanese and in Basque.

11. See also Jackendoff (1972), Cinque (1999, 2004), and Giorgi (2010) among others for studies related to these adverbs.

12. See Bianchi and Frascarelli (2010, 82) for a different view of the distribution of the various topics in English.

13. The notion of competition at the level of C recalls den Besten's (1983) proposal for root transformations in Germanic. In a later work, Haegeman (2012, 107) suggests that intervention effects are computed on feature sets, where an entity with a richer

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feature set can cross one that has an impoverished feature set. I will continue to adopt the more simple notion of intervention in her earlier work.

14. Thanks to Ángel Jiménez-Fernández and Carlos Muñoz Pérez for providing the Spanish data.

Chapter 3

1. I have found that speakers in the Osaka region unexpectedly allow the VP-ellipsis reading in which the manner adverb is contained in the elided portion. No other speakers allow it as far as I know, and I will take Oku's observation as the general rule, leaving aside the question of why Osaka-area speakers allow the VP-ellipsis interpretation.

2. See Raposo (1989) for related discussion.

3. See Abe (2014) and Park (2014), among many others, for other approaches that do not assume argument ellipsis.

4. A very different approach to the availability of sloppy interpretation is found in Otaki (2012). Otaki links it to differences in the morphological types of nominal phrases, the analysis of which is based on Neeleman and Szendröi (2007). I will not take up this alternative approach.

5. This section owes a great deal to Jim Huang, who went through it and gave me detailed comments that helped with the analysis and helped me to avoid some embarrassing mistakes. I regret that I could not respond satisfactorily to all his points.

6. In this chapter I am primarily concerned with the subject empty element; for discussion of the object empty element, see, for example, J. Huang (1984), Li (2014), and references therein.

7. In a related article, Sato (2015b) develops his analysis in detail using Javanese.

8. Huang (2001) notes that in certain cases number apparently also shows the effect of blocking.

(i) a. Tamen$_i$ shuo Zhangsan$_j$ piping-le ziji$_{*i/j}$.
they say Zhangsan criticize-PRF self
'They said that Zhangsan criticized *them/himself.'
b. Tamen$_i$ **dou** shuo Zhangsan$_j$ piping-le ziji$_{i/j}$.
they all say Zhangsan criticize-PRF self
'They **each** said that Zhangsan criticized them/himself.'

In (a) the matrix subject is plural while the lower subject is singular, and *ziji* cannot have long-distance construal with the matrix subject. In (b), *dou* 'all' has been added to the matrix subject, which adds a distributive reading. While the subject is still plural, *dou* makes it semantically singular. From this, Huang concludes that blocking is not due to agreement, but due to the long-distance *ziji* being logophoric and logophoric antecedents being semantically singular. I note this as a challenge to the agreement-based approach to the blocking effect of *ziji*.

Another challenge to the agreement-based approach to blocking is found in Huang and Liu (2001) (see also Li 2014 and references therein). Huang and Liu note that in certain cases, a non-subject may trigger blocking.

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(ii) a. Zhangsan$_i$ gaosu wo$_j$ Lisi$_k$ hen ziji$_{*i/*j/k}$.
Zhangsan tell me Lisi hate self
'Zhangsan told me that Lisi hated *him/*me/himself.'
b. Zhangsan$_i$ dui wo$_j$ shuo Lisi$_k$ chang piping ziji$_{*i/*j/k}$.
Zhangsan to me say Lisi often criticize self
'Zhangsan said to me that Lisi often criticized *him/*me/himself.'

These examples show that an object 1st person can block long-distance construal of *ziji* despite the fact that the local subject is 3rd person and the matrix subject is also 3rd person. Huang and Liu (2001) conclude that examples such as these point to the blocking effect arising from the logophoric nature of long-distance *ziji*. However, Giblin (2015) proposes an agreement-based approach to blocking that takes into account these types of examples as well. Although the kind of agreement approach in this chapter is different, I assume that with revision, such as that suggested by Giblin (2015), this type of blocking can also fall under an agreement-based approach. In addition, we will see in the last section of this chapter that even in Japanese, which has no agreement within the TP region, we see a kind of blocking of *zibun* 'self' in certain Point of View contexts. There is a possibility that in Chinese, while the subject-triggered blocking is governed by agreement, the triggerer of non-subject blocking may be some sort of POV. As we will see later in the chapter, Japanese—which does not evidence the kind of blocking we see in languages such as Chinese and Malayalam, blocking that is primarily triggered by a participant subject—nevertheless shows some form of blocking triggered by POV considerations. Cole, Hermon, and Huang (2006) have already noted the possibility that in Chinese, the source of blocking may not be uniform, with participant subjects triggering a grammatical relation-based blocking and non-subjects triggerring POV blocking, the latter felt to be weaker in effect. This is true in Japanese, where the blocking effect solely involves POV, and it is weaker, as far as I can tell, compared to the blocking effects found in languages such as Chinese. In this regard, it is interesting that when I asked a number of native speakers of Chinese about the following, the reaction was often, though not always, different for the two examples.

(iii) a. Lisi juede [wo dui ziji mei xinxin].
Lisi think I have self no confidence
'Lisi thinks that I have no confidence in self.'
b. Lisi dui wo shuo Zhangsan chang piping ziji.
Lisi to me say Zhangsan often criticize self
'Lisi said to me that Zhangsan often criticized self.'

(a) is an example of a typical blocking effect caused by a "participant" subject, in this case 'I'. (b) is an example of blocking due to a non-subject participant entity. All agreed that (a) is ungrammatical with the intended meaning of Lisi being the antecedent of *ziji*, but many noted that while (b) is degraded on that reading, it isn't as severe in its unacceptability as (a). One speaker gave (a) "*" while giving "??" to (b); another said that on a scale of 1 to 10, (a) is 1 (worst) while (b) is 3; and a third said that while the intended construal is impossible in (a), it is "easier" in (b). This may suggest that the two types of blocking are due to different properties, something that requires further

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careful study. Lisa Cheng asked the eight native Chinese speakers from the mainland in her University of Leiden class about these examples, with the following reaction: while all rejected (a) with *ziji* interpreted as Lisi, four of the eight accepted this interpretation for (b) while the other four rejected it. According to Lisa Cheng, the four who accepted (b) with the intended reading are from south of the Yangtze River while those who rejected it are from north of it. This implies a regional difference.

9. An anonymous reviewer raises the question of how Progovac's anaphoric AGR relates to feature inheritance, which assumes that all grammatical features originate at C. I presume that the ϕ-feature on the matrix AGR starts out at C, as is standardly assumed, but the anaphoric AGR's ϕ-feature is inherited directly from the higher AGR.

10. Jim Huang (personal communication) points out that there are instances in which the subject *pro* may refer to a non-subject.

(i) Zhangsan daying Lisi shuo [*pro* mingtian keyi zai jia xiuxi].
Zhangsan promise Lisi that tomorrow can at home rest
'Zhangsan promised Lisi that $pro_{(i/j)}$ can take a rest at home tomorrow.'

Given that the literature on the Chinese subject *pro* typically states that the antecedent is the subject, I leave this as an exception to be dealt with in a future study.

11. Jim Huang (personal communication) notes that (49) could have an alternative structure in which 'linguistics' is *v*P-adjoined instead of being in the CP topic region. Such an alternative structure would not cause a problem for Liu's analysis. I presume that prosody marks 'linguistics' as topicalized, hence in the CP region, but I will leave this for later study.

12. According to Patel-Grosz and Grosz (in press), this judgment of ungrammaticality is not shared among all native speakers of German.

13. See Patel-Grosz and Grosz (in press) for a different proposal in which both forms of the pronoun contain an NP. In their work the strong/weak difference arises from the strong/weak articles proposed by Schwarz (2009). See also Cardinaletti and Starke (1999) for related discussion.

14. The idea that the subject *pro* in Chinese is featurally defective recalls Li's (2014) True Empty Category for Chinese pronouns. She postulates a position that simply lacks any relevant features. She identifies the object empty slot with the TEC.

15. According to Amanda Swenson (personal communication), the native speakers she consulted were split as to whether the sloppy interpretation is possible for the subject *pro* (see Simpson, Choudhury, and Menon 2013 for a different outcome). We will see a similar result from a large-scale survey conducted for Chinese.

16. See Duguine (2008) for related discussion on Basque.

17. Yip (1995) and Jiang (2012) argue that the subject undergoes vacuous movement to Spec,Top to get the topic interpretation. This may be the case, or it may simply be that Spec,TP can be a topic position, similar to Romance.

Chapter 4

1. I have changed the example to 'look at/watch' from Ochi's original 'see'. Thanks to Carlos Muñoz Pérez for the suggestion.

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2. Thanks to João Costa for the analysis and the data. Brazilian Portuguese works slightly differently, although similar arguments can be made; thanks to Cilene Rodrigues for the information.

3. An anonymous reviewer notes that French has two lexical items, *pourquoi* and *parce que* ('why' and 'because', respectively), which may correspond to the focused and unfocused 'why' that we see in languages such as Portuguese. The interesting thing is that you can use both of them in embedded contexts, in a similar way as you can in English.

(i) Je crois qu'il va pleuvoir, c'est pourquoi je prends le parapluie.
'I believe that it's going to rain, that's why I take the umbrella.'

(ii) Je prends le parapluie (, c'est) parce que je crois qu'il va pleuvoir.
'I'm going to take the umbrella, because I think it's going to rain.'

According to the reviewer, these examples seem to show quite clearly that we are on the right track regarding the fact that 'why' is higher (and focused) and 'because' is lower and unfocused, and perhaps moved.

4. Rizzi (1992) earlier observed some of the intervention effects in German studied by Beck (1996a) on the basis of data given in McDaniel (1989). See Hoji (1985) for the first study of what we today would call intervention effects.

5. An alternative is that what is fronted is a full CP instead of a *v*P, so that the *naze* in this example is in Spec,CP in the fronted CP, reflecting Ko's approach. However, that this cannot be the case is shown by the fact that if we put the intervenor *-sika* 'only' on the subject, the anti-intervention holds (see (63) later). If the fronting is of a full CP, this would not be expected since it would be a long-distance movement of *naze*, which does not have an anti-intervention property. Thanks to David Pesetsky for mentioning the CP-fronting possibility.

6. One speaker continued to allow the pair-list reading in the 'everyone'–'why' order. He mentioned that to get this reading, he had to heavily emphasize 'everyone'. This may indicate that in this person's case, 'everyone' has moved by focus movement above ReasonP, so that it can c-command the variable of 'why' in the specifier of ReasonP. Ochi (2004) also states that an example similar to (77a) is ambiguous.

7. As Kurafuji (1997) and others have observed, the 'what' adjunct question is often most natural in the progressive form.

8. Linguists have debated the nature of the two causatives (*-o* and *-ni*) from the earliest studies; see Miyagawa (1999), among others, for a summary of this debate. One aspect of this debate is the analysis of "syntactic" versus "lexical" causatives; see, for example, Miyagawa (1998) and references therein. In this chapter we will only deal with the syntactic *-(s)ase*.

Chapter 5

1. Miyagawa (2013) is reproduced as sections 5.2–5.6.

2. For a very different reason, Watanabe (1996) also assumes that the genitive subject stays in Spec,*v*P.

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3. Harada's (1971) original point was that in (9b), having two items between the genitive subject and the verb leads to ungrammaticality. However, having even one of the items is awkward (Miyagawa 2011).

(i) ??kodomo tati-no minna-de kake-nobotta kaidan
children-GEN together run-climb up stairway
'the stairway which those children ran up together'

Also, if the intervening element is part of the VP, so that the genitive subject can stay in Spec,*v*P, we predict that it should be perfectly grammatical; this is shown below (Miyagawa 2011).

(ii) Koozi-no mattaku sir-anai kakudo
Koji-GEN at.all know-NEG angle
'an angle that Koji doesn't know at all'

Mattaku 'at all' is a VP adverb.

4. Another argument given for the difference between the two structures involves the licensing of adverbs. If the nominative subject is contained in a CP, while the genitive subject is contained only in a TP, as proposed, we predict that CP-level adverbs such as speech act, evaluative, and evidential adverbs (*honestly, unfortunately, evidently*) (Cinque 1999) may only occur with the nominative subject.

(i) a. [saiwai-ni Taroo-ga/*-no yomu] hon
fortunately Taro-NOM/-GEN read book
'the book that Taro will fortunately read'
b. [kanarazu Taroo-ga/-no yomu] hon
for.certain Taro-NOM/-GEN read book
'the book that Taro will read for certain'

(ia) shows that a CP-level adverb is compatible only with the nominative subject as predicted, while (ib) demonstrates that both types of subjects are fine with 'for certain', an adverb that occurs lower in the structure. I should also note that, more recently, I have consulted with a large number of speakers about this difference, and I found that while some got the distinction, many did not; the latter found (ia) with *-no* not so bad.

5. I'm grateful to an anonymous reviewer for pointing out that this *v*, which I described as "weak" *v* in the 2013 publication of this chapter, should instead simply be designated as *v*.

6. Akaso and Haraguchi (2014) provide additional evidence for the GDT based on the *yooni* construction.

7. In the original publication of this chapter (2013), I stated that the reason why the GDT does not occur on the object of an active transitive verb but does occur on the object of a stative transitive verb has to do with the requirement that the GDT must occur with a "weak" *v*, that is, a *v* that does not assign Case. However, as an anonymous reviewer points out, the system proposed in fact ends up assuming that this *v* does license Case, the genitive Case, hence it is difficult to consider it as weak *v*. I will leave this issue open.

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8. Note that we have now revised our initial assumption that the GDT only occurs with a T that is selected by C. The GDT's co-occurrence with the D-licensed genitive in (53b) shows that the GDT can in fact occur in a TP without CP, since that is the structure that the D-licensed genitive requires. Since we also saw evidence in (30) that the GDT can occur with CP, our revised assumption is that it is compatible with both structures.

9. An anonymous reviewer pointed out that the description of this *v* as "weak" was less than transparent. Despite being a weak *v* it licenses Case, which would be a contradiction. One way out of this conundrum, as the reviewer suggests, is to view the *v* as strong and, along the lines of Icelandic, able to assign quirky case. Under this analysis the *v* that can assign GDT is assigning quirky case in the environment of dependent tense.

10. A question that comes up is, what if *v* does not assign Case?

(i) ?(*)Hanako-no furansugo-dake-ga hanas-e-ru koto
Hanako-GEN French-only-NOM speak-can-PRS fact
'the fact that Hanako can speak only French'

Speakers generally accept this, although one speaker did not, and this speaker noted that it becomes worse if some adverbial is placed before the genitive subject. If, however, the example is fine, one way to account for it is to say that the occurrence of focus identifies *v* as a phase head. This is speculation, and more work is needed to understand both the grammatical nature of this example and how to account for it.

11. The novels are *Byakuya Soshi* (1976) by Itsuki Hiroyuki, *Hoshibosi no Kanashimi* (1984) by Miyamoto Teru, *Koibumi* (1987) by Renjo Mikihiko, and *Fukai Kawa* (1996) by Endo Shusaku.

12. Nambu (2007) presents another extensive corpus study of *ga/no* conversion based on the minutes of the national Diet. While the percentage of genitive subjects is smaller than in Kim's study (27.8%), Nambu's results echo Kim's in showing that the genitive subject occurs far more frequently with adjectives than with verbs (10.6%). The lower percentage in Nambu's study may reflect the formal style of the Diet minutes.

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